December 1977

# A Comparison of Attitudes Toward Community Colleges With Attitudes Toward Four-year Colleges

Robert L. Gillespie
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# A COMPARISON OF ATTITUDES TOWARD COMMUNITY COLLEGES WITH ATTITUDES TOWARD FOUR-YEAR COLLEGES

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A Dissertation

Presented to

the Faculty of the Department of Education

East Tennessee State University

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

Robert Lee Gillespie

December 1977

APPROVAL

This is to certify that the Advanced Graduate Committee of

Robert Lee Gillespie

met on the

22nd day of November, 1977.

The committee read and examined his dissertation, supervised his defense of it in an oral examination, and decided to recommend that his study be submitted to the Graduate Council and the Dean of the School of Graduate Studies in partial fulfillment of the requirements for the degree Doctor of Education.

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# A COMPARISON OF ATTITUDES TOWARD COMMUNITY COLLEGES WITH ATTITUDES TOWARD FOUR-YEAR COLLEGES

An Abstract

Presented to

the Graduate Faculty

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In Partial Fulfillment

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by

Robert L. Gillespie

December 1977

Robert L. Gillespie, B. A., Berea College, May 1959.
M. A., East Tennessee State University, June 1970.
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# A COMPARISON OF ATTITUDES TOWARD COMMUNITY COLLEGES WITH ATTITUDES TOWARD FOUR-YEAR COLLEGES

Purpose. The purpose of this research was to determine if the attitudes of high school seniors toward community colleges and four-year colleges were significantly different according to socio-economic measures, and to see how they compared with their teachers' attitudes.

Method. The population for the study included 1,573 seniors and 232 teachers in fifteen high schools in the Cumberland Plateau Planning District which included the Virginia counties of Buchanan, Dickenson, Russell, and Tazewell. A biographical data form and an attitudinal instrument were constructed, validated, field-tested, and completed by 1,340 seniors and 232 teachers.

The biographical data form included the following information: (1) sex, (2) name of school, (3) father's occupation, (4) mother's occupation, (5) father's education, (6) mother's education, (7) expected future occupation of the respondent, (8) expected amount of education to be achieved in the future, (9) how much education should be achieved by today's seniors for tomorrow's world, (10) post-high school plans, (11) when post-high school plans were decided, (12) who had the most influence on the senior's educational aspirations, and (13) the number of siblings in the respondent's family.

An attitudinal instrument was constructed to measure the social attitudes of high school seniors and teachers of seniors toward four-year colleges and community colleges. The tasks involved the review of relevant literature and discussion of the project with professors of education at East Tennessee State University. Items were gathered, reviewed, and rewritten three times. They were then submitted to a panel of six judges, including a professor of education, two professors of psychology, a dean of instruction at a community college, a high school principal, and two supervisors of public school education. The items were evaluated according to predetermined criteria. The items were refined and prepared in a Likert format and administered as a pilot test to nine seniors, three who planned to attend four-year colleges, three who planned to attend community colleges, and three who did not plan to attend college. After evaluation of the responses and an interview with each of the nine seniors, the items were edited for the fifth and final draft.

Items were assigned to the final draft by using a table of random numbers. The instrument was administered to every twelfth senior in each high school to collect data to calculate the reliability coefficient. Items were analyzed by establishing criterion reference groups by calculating the mean scores for the top 25 percent and the bottom 25 percent. The means of the low group were subtracted from the means of the high group and the differences were ranked according to the magnitude of differences. The twenty-five items with the greatest difference were selected for the final instrument after a Pearson Product Moment Correlation Coefficient yielded .8633 for the half-test and the Spearman-Brown formula as a correction for the full test yielded .9266.

The biographical data form and the attitudinal instrument were administered to high school seniors (who had not participated in the field tests) and the attitudinal instrument only was administered to teachers of high school seniors during a given week. The high school supervisors of each county were given printed instructions on how to administer the instrument. Instruments were coded for identification by subject type, high school, and county.

Responses of completed instruments were formated for the SPSS on the IBM 370 computer at East Tennessee State University. Data were grouped by subject type, sex, school, county, and by items on the biographical data form. To determine if there were significant differences according to selected independent variables, the data were subjected to multiple classification of analysis of variance and t-tests, using the confidence level of $\leq .05$. All significance levels were reported.

Summary. Educational levels of fathers and mothers were very low, with fewer than one of five fathers holding high school diplomas; slightly more than one of four mothers held high school diplomas. Mothers generally had completed more years of schooling than fathers.

When fathers' occupations were grouped by thirteen levels, almost one-half were miners; the second largest category was unemployed. Almost two-thirds of mothers were reported as housewives; the second largest group was reported in the category professional and related services.

More seniors planned to enter the professional and related services fields than planned to enter mining, which is the major industry that employs about 50 percent of the fathers in the area. The third largest group selected business and repair services.

Approximately 44 percent of seniors planned to complete their education with the high school diploma, while approximately 49 percent planned to continue by attending college and pursuing degrees. Almost 34 percent of seniors reported they believed that seniors should pursue a college degree. More seniors reported that students should pursue college degrees than reported they intend to pursue the degrees.

More seniors, 39.4 percent, planned to get a job after graduation than planned to attend a four-year college, 17.5 percent, and planned to

attend a two-year college, 15.7 percent. The majority of seniors decided during their senior year, 41.7 percent, what they would do after graduation. Only 13.1 percent decided in the eleventh grade, 16.3 percent decided before the eleventh grade, and 27.8 percent reported they had not yet decided what they would do.

Seniors reported that the mother, 27.7 percent, had more influence on their educational aspirations than anyone else; 23.5 percent selected the father. Only 5.3 percent selected a teacher, 2.1 percent selected the guidance counselor, and .4 percent selected the principal.

There were eighteen hypotheses stated in the null. Three could not be tested, one was tested by a correlation coefficient, twelve were tested by a multiple classification of analysis of variance, and two were tested by t-tests.

The data showed that there were no significant differences between the attitudes of seniors categorized by fathers' and mothers' occupational levels and for interaction. Sex was significant, however, at the $p = \leq .001$ level. For fathers' and mothers' educational levels, similar results were obtained, no significance for educational levels or interaction, but significance for sex.

The data were grouped by counties to determine if there were significant differences among the counties by sex. As had previously been shown, sex was significant at the .001 level, and there was significance for county at the .01? level. Interaction was not significant at the .05 level. When t-values were calculated between males and females, there was significance below the .05 level in three counties, but not for Buchanan. There were significant differences at the .05 level between senior males and teachers in all counties except Tazewell. There were significant differences between senior females and teachers in Buchanan and Russell, but not in Dickenson and Tazewell.

There was a significant positive relationship (.001) for males and females in all the counties between what educational levels seniors reported should be obtained and the levels seniors reported they intended to obtain.

There was a significant difference at the .001 level between the attitudes of seniors who planned to attend college and seniors who did not plan to attend college.

Scores for seniors grouped by four levels of siblings were not significantly different at the .05 level. Mean scores were higher, however, for seniors with no siblings or with one or two siblings than for seniors with three or four siblings or with five or more siblings.

Conclusions. Conclusion One: Educational levels of fathers and mothers were generally lower than state levels. Within the population of the study, mothers had more education than fathers. Among the counties, Tazewell fathers and mothers ranked highest, with Russell second, Dickenson third, and Buchanan fourth.

Conclusion Two: Mining was a major occupation with over one-half of Buchanan and Dickenson fathers and over one-third of Russell and Tazewell fathers reported as miners. The support industries of construction, transportation, communication, and other public utilities provided back-up jobs for the mining industry.

Conclusion Three: Unemployment among fathers was higher than state or national levels.

Conclusion Four: Except for certain occupational groups such as personal services, professional services, and manufacturing, there were limited job opportunities for mothers. Almost two-thirds, 61.5 percent, were reported as housewives.

Conclusion Five: Seniors had relatively high aspirations for jobs, with one out of five expecting to enter the professional field. Since the area was primarily a one-industry area with coal and related service industries, speculation leads to the question, "Do professions such as teaching, banking, law, and medicine provide dreams for upward mobility from the mining industry?"

Conclusion Six: Almost one-half of all seniors expect to stop their education with the high school diploma. This might be related to the extremely low educational levels of fathers and mothers. About one out of five seniors expected to pursue college degrees. Seniors in this study could be described as having low educational aspirations.

Conclusion Seven: Seniors believed that more education should be achieved than they reported they intended to achieve. Students could be compromising the dilemma represented by undereducated parents and the slogan representing education, that "if you want a good job, get a good education."

Conclusion Eight: More seniors planned to get jobs upon graduation than planned to attend college; but among the college bound, more seniors favored four-year colleges than community colleges.

Conclusion Nine: Post-high school plans generally were not decided until sometime during the senior year or later. Almost seven out of ten decided sometime after becoming seniors, while only three out of ten decided before the twelfth grade.

Conclusion Ten: Seniors' educational aspirations were influenced more by mothers than by fathers, and more by parents than by school personnel. In this study, the influence of guidance counselors and principals would be considered negligible, while teachers exert minimal influence.

Conclusion Eleven: Fathers' and mothers' educational levels did not bear significantly upon the attitudes of seniors in this study. This could be related to the homogeneity of the culture and the overwhelmingly low level of education of adults in the area.

Conclusion Twelve: Levels of occupation did not bear significantly upon the attitudes of seniors. This could be related to the nature of jobs in the area. In a sense, the area represents a one-industry economy with coal providing almost all the jobs, either directly or indirectly. There could be a common thread running through most of the jobs in the area.

Conclusion Thirteen: There was a significant difference between the attitudes of seniors who planned to attend college and seniors who did not plan to attend college. College-bound seniors had higher mean scores on the attitude scale than non-college-bound seniors.

Conclusion Fourteen: The size of family as measured by the number of siblings did not bear significantly upon seniors' attitudes.

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Dissertation directed by Dr. Clyde L. Orr, Dr. William L. Evernden, Dr. Charles W. Burkett, Dr. J. Howard Bowers, and Dr. Donald R. Jones.

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# Chapter 1

## INTRODUCTION

Students complete more years of school at the present time than ever before in history. "A majority of high school students, perhaps two out of three, enter some form of postsecondary education. . . . Thus the high schools become one stage in the educational process and not the final stage for most persons."[1] Charles E. Johnson reported that college enrollment increased during the 1963-1967 period ". . . because increasing proportions of the population were completing their high school education and becoming academically eligible for admission to college."[2] His interpretation of trends in college enrollment led to the conclusion that two basic factors accounted for change in college enrollments: (1) changes in the college age population; and (2) changes in the enrollment rate of the college age.[3]

If present trends continue, the average number of years of education completed will increase as more youngsters attend college. Even though the birth rate has declined, it is expected to have little impact on the number of college-going youth. The Carnegie Commission predicts that the number of students added to higher education enrollment

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[1]Clark Kerr, A Digest of Reports on the Carnegie Commission on Higher Education (New York: McGraw Hill Book Company, 1973), p. 207.

[2]Charles E. Johnson, Jr., "Changing Trends in College Enrollment," College and University, XLIX (Fall, 1973), 38.

[3]Johnson, p. 37.

during the 1970's could be larger than the number added in the 1960's and that the most rapid growth will be experienced by two-year institutions.[4] A glimpse of the future may be evident in the 1960 to 1970 period when there was a 261 percent increase in the number of students enrolled in two-year colleges.[5]

The growth of two-year institutions has been phenomenal, probably in response to an increased demand for higher education, and their very existence in turn encouraged increased enrollments. From 1960 to 1970 the number of two-year colleges increased from 500 to 900.[6] This growth is expected to continue and make available a variety of services to youth and others. The import of college attendance by youth was stated succinctly by James W. Trent and Leland L. Medsker in Beyond High School.

> The educational opportunities our youths accept or reject, the use they make of their potential, is of vital national concern. Yet all indications have been that the ever-accelerating demand for more highly trained people has not been met with a sufficient increase in post high school education for those who could make use of it.[7]

So the question might be, what attitudes do high school seniors have toward college? More specifically, what attitudes do they have toward two-year colleges and four-year colleges? Researchers have long been interested in who goes to college and what factors influence the decision to attend. Ralph R. Fields reported on seven influential factors:

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[4]Kerr, p. 79. [5]Johnson, p. 40.

[6]Johnson, citing U. S. Department of Health, Education, and Welfare, Office of Education, "Annual Report," Digest of Educational Statistics.

[7]James W. Trent and Leland L. Medsker, Beyond High School (San Francisco: Jossey-Bass, Inc., 1968), p. 3.

1. academic ability
2. ability to pay
3. motivation
4. parents' occupation
5. geography
6. sex
7. membership in minority groups[8]

Johnson listed six important factors:

1. availability of college
2. financial ability of students or parents
3. availability of loans, scholarships, and other funds
4. draft pressures
5. desire for a college education
6. felt need for a college education for occupational and financial success[9]

Other authors researched high school size and its relationship to college academic success,[10] secondary guidance programs and college selection,[11] attitudes of economically deprived students and college

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[8]Ralph R. Fields, The Community College Movement (New York: McGraw-Hill Book Company, 1962), p. 264.

[9]Johnson, p. 38.

[10]Valjean M. Cashev, "High School Size as a Factor in College Attendance," Journal of Secondary Education, XLV (October, 1970), 256-259.

[11]Robert W. Graff and David E. Peters, "Junior College Freshmen View Secondary Guidance Received in College Selection," Journal of Secondary Education, XLIV (October, 1969), 271-276.

experiences,[12] and the list goes on. Not much can be found, however, on attitudes toward colleges of high school seniors in the Appalachian region, or the attitudes of high school teachers who primarily were once high school students in the Appalachian region.

In view of the proliferation of community colleges and the expanded programs of colleges and universities in many parts of Appalachia, and especially in respect to the increased attention and activity focused in the area as a result of the coal economy and the energy crises, it becomes increasingly important to assess the attitudes of selected key people toward colleges. The need for the study is epitomized in a statement by Thomas A. Karman,

> . . . if higher education is to respond creatively to both students and society, understanding clearly what each expects from college is essential--especially since "college" is regarded increasingly as only one of several routes to success, and is becoming somewhat less attractive to college age students, as can be seen from recent enrollment patterns.[13]

## THE PROBLEM

### Statement of the Problem

Are attitudes of high school seniors toward community colleges different from their attitudes toward four-year colleges, and how do they compare with their teachers' attitudes?

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[12]John D. Jones and William S. Fennell, Jr., "Relationships Between College Experiences and Attitudes of Students from Economically Deprived Backgrounds," Journal of College Student Personnel, XIII (July, 1972), 314-318.

[13]Thomas A. Karman, "Student Expectations of College: Some Implications for Student Personnel Administrators," NASPA Journal, XI (Spring, 1974), 52.

Sub-Problems

1. Are attitudes of senior males and senior females toward community colleges different from attitudes toward four-year colleges?

2. Are attitudes of senior males and senior females different according to occupations of fathers and mothers?

3. Are attitudes of senior males and senior females different according to educational levels of fathers and mothers?

4. Are attitudes of senior males and senior females different among the four counties of Buchanan, Dickenson, Russell, and Tazewell?

5. Are attitudes of senior males different from attitudes of senior females on the economic sub-scale?

6. Are attitudes of senior males different from attitudes of senior females on the social sub-scale?

7. Are attitudes of senior males and senior females different from their teachers' attitudes?

8. Will the "expected educational level to be attained" equal the "stated amount of education that should be attained"?

9. Are attitudes of seniors who plan to attend college different from attitudes of seniors who do not plan to attend college?

## HYPOTHESES

The hypotheses of this study are:

H1. There is no significant difference between senior male attitudes toward community colleges and senior male attitudes toward four-year colleges.

H2. There is no significant difference between senior female

attitudes toward community colleges and senior female attitudes toward four-year colleges.

H3. There is no significant difference between attitudes of senior males on measures of fathers' occupation.

H4. There is no significant difference between attitudes of senior males on measures of mothers' occupation.

H5. There is no significant difference between attitudes of senior females on measures of fathers' occupation.

H6. There is no significant difference between attitudes of senior females on measures of mothers' occupation.

H7. There is no significant difference between attitudes of senior males on measures of fathers' education.

H8. There is no significant difference between attitudes of senior males on measures of mothers' education.

H9. There is no significant difference between attitudes of senior females on measures of fathers' education.

H10. There is no significant difference between attitudes of senior females on measures of mothers' education.

H11. There is no significant difference between attitudes of senior males and senior females among the counties of the Cumberland Plateau Planning District.

H12. There is no significant difference between attitudes of senior males and senior females on the social sub-scale.

H13. There is no significant difference between attitudes of senior males and senior females on the economic sub-scale.

H14. There is no significant difference between the attitudes of senior males and the attitudes of their teachers.

H15. There is no significant difference between the attitudes of senior females and the attitudes of their teachers.

H16. There is no significant relationship between the "reported expected educational level to be attained" and the "stated amount of education that should be attained."

H17. There is no significant difference between the attitudes of seniors who plan to attend college and the attitudes of seniors who do not plan to attend college.

H18. There is no significant difference between the attitudes of seniors according to family size as measured by the number of siblings.

## THEORETICAL FRAMEWORK

Research generally suggests that less able students select community colleges over four-year colleges. Evidence also indicates that community college students tend to be less motivated, generally come from a lower socio-economic class, and tend to have lower occupational aspirations than four-year college students. Robert Graff and David Peters found that a majority of 502 community college freshmen ranked below the median of their high school graduating class.[14] Rickey George and Karol George reported that the junior college student in general ". . . is less academically able than is the student of the four-year college."[15]

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[14]Robert W. Graff and David E. Peters, "Junior College Freshmen View Secondary Guidance Received in College Selection," Journal of Secondary Education, XLIV (October, 1969), 271.

[15]Rickey L. George and Karol A. George, "Meeting the Non-Academic Needs Unique to the Junior-College Student," National Association of Student Personnel Administrators Journal, IX (October, 1971), 155.

It is generally believed that lower achievers come primarily from families with lower socio-economic backgrounds and that they hold less positive and favorable attitudes toward college education. It is believed by some that they are attuned to immediate goal satisfaction, while middle and upper socio-economic groups adapt easily to longer-range goals. Placing these considerations into the context of social and economic attitudes toward community colleges (two-year colleges) and four-year colleges, it is possible to relate the variables of goals, post-high school plans, to values (attitudes) according to measures of socio-economic status (occupation and education).

The most often used measure of SES (socio-economic status) was the father's occupation and education; however, it was recognized that society changed drastically after World War II, bringing mothers into the labor force in great numbers. In the seventies there was considerable discussion of women's liberation, equal pay for equal work, and sex discrimination. It was recognized, too, that more women held higher positions and received more pay than anytime in history. The same was generally true about educational achievements. Additionally, recognition was given to the phenomenon of divorced mothers being the heads of households, which gave further support to the tenet that SES can no longer be based solely on characteristics of the father. For these reasons, it was decided that females' aspirations and accomplishments should be considered in concert with the considerations for males in relating variables to measures of socio-economic status.

The importance of mothers' educational levels was attested by James Trent and Leland Medsker's finding that as a variable affecting college attendance, it held equal importance with fathers' occupation.

Further, they found that males and females attended college in equal numbers regardless of fathers' occupation when mothers were college graduates.[16]

In addition to theorized influences relating to family environment, it was recognized that students spend several years under the probable influence of teachers. Subjected daily to social interaction with teachers who presumably have definitive attitudes toward education and educational objects, senior students contemplating decisions about college were in a position to be influenced by those teachers. The area of probable influence included the total environment in which teachers and students interact, both formally and informally.

Teacher attitudes, presumably, were expressed verbally and by positive or negative behavior. Whether students assimilated these attitudes or came to the twelfth grade holding attitudes similar to those of teachers were matters subject to investigation.

To determine whether there were distinct differences between adult values and adolescent values, Raymond Eve surveyed 300 eleventh and twelfth grade students and a random sample of their teachers in North Carolina. He concluded that the study ". . . provided evidence that although students do maintain a statistically distinct value system, this system is primarily conventional in its orientation and differs only to a relatively small degree from the value system of the adult world."[17] Eve also found that analysis of sex differences

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[16]James W. Trent and Leland L. Medsker, Beyond High School (San Francisco: Jossey-Bass, Inc., 1968), p. 25.

[17]Raymond A. Eve, "Adolescent Culture, Convenient Myth or Reality? A Comparison of Students and Their Teachers," Sociology of Education, XLVIII (Spring, 1975), 165.

showed the greatest discord between male teachers and male students, followed by female teachers and male students, then male teachers and female students, and the least discord between female teachers and female students.

Similar results for sex were found by Thomas Good and Jere Brophy, who studied attitudes of teachers toward different first-grade students. Teachers placed twice as many boys as girls in a rejection group. Low achieving girls elicited teacher concern, while low achieving boys elicited rejection. Students who were bright and controlled their classroom behavior to conform to institutional norms appealed to teachers.[18]

## ASSUMPTIONS

The assumptions pertinent to this study were:

1. Attitudes measured were among the most important that seniors might have toward colleges.

2. Attitudes were well established since seniors obviously were making post-high school plans.

3. Seniors and teachers responded truthfully to the attitudinal instrument.

4. Race was not a significant factor in this study since only 2 percent of the total population was non-white.

## LIMITATIONS

This study was limited to the measurement of social and economic attitudes of high school seniors enrolled in the high schools of

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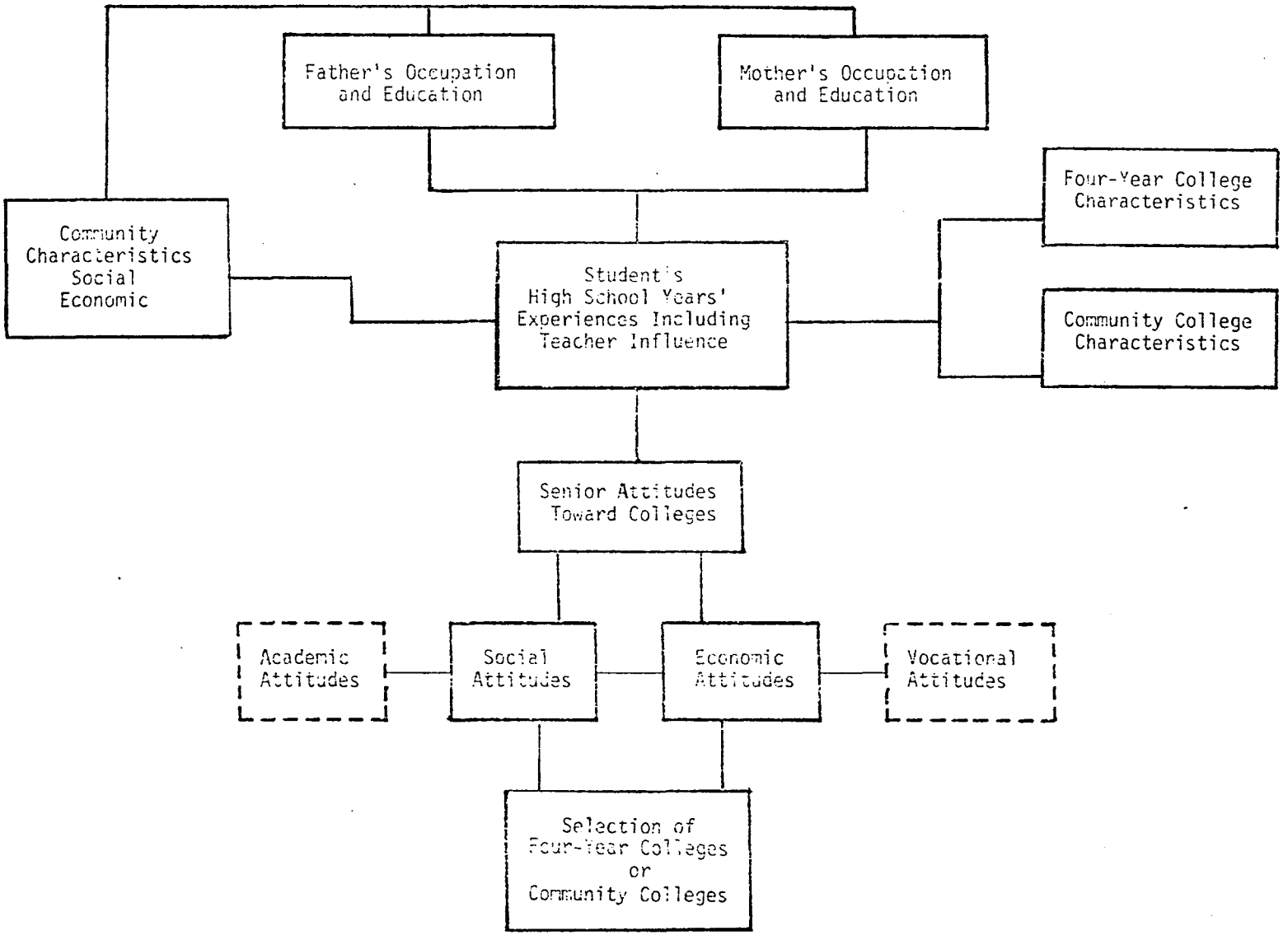
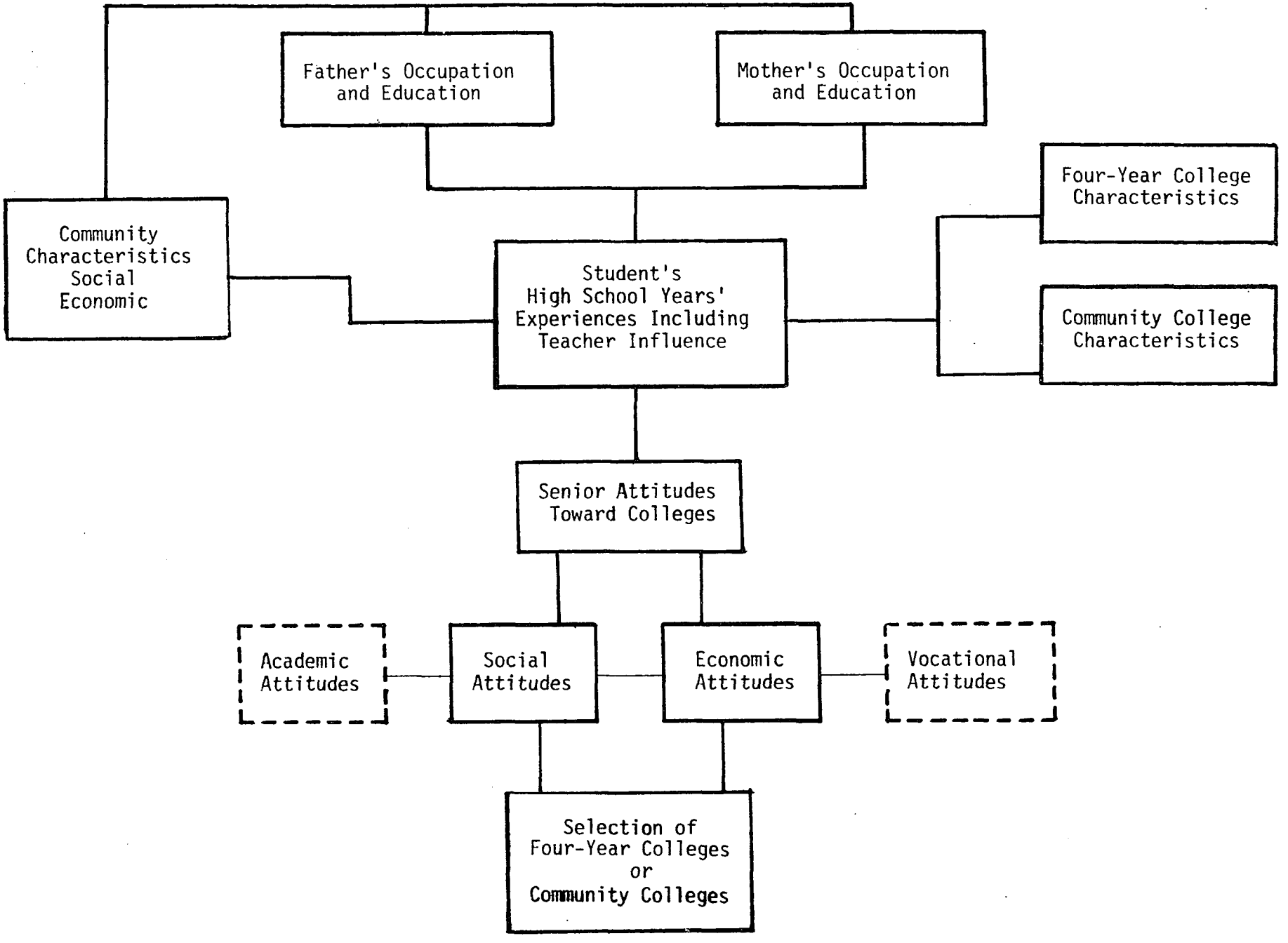
[18]Thomas L. Good and Jere E. Brophy, "Behavioral Expression of Teacher Attitudes," Journal of Educational Psychology, LXIII (December, 1972), 617-624.

FRAMEWORK FOR THE PROBLEM



FRAMEWORK FOR THE PROBLEM



Buchanan, Dickenson, Russell, and Tazewell Counties, comprising the Cumberland Plateau Planning District during the school year 1976-1977. The reported data for seniors were gathered by an attitudinal instrument and a biographical data form constructed and validated by the investigator.

## VARIABLES

Several variables were identified as bearing significantly on the study. The dependent variable was attitudes toward community colleges and four-year colleges. The independent variables were sex, fathers' occupation and education, mothers' occupation and education, number of siblings, and post-high school plans.

## SIGNIFICANCE OF THE RESEARCH

There were conflicting reports about increasing and decreasing enrollments in colleges across the nation. However, in the population area of this study, data revealed that general educational levels were far below the median of the State of Virginia and the nation. It was believed, too, that in this area more students were currently attending colleges than ever before in history.

In the past, prospective students were constrained by relative geographical isolation, almost universal poverty, and lack of opportunity to attend colleges. In the seventies a different environment existed, brought about by improved roads, consolidated public schools, and the location of a community college in the area. These factors placed in the framework provided by an increased activity associated with the new coal economy produced an environment susceptible to more

rapid change than was experienced in several decades.

Very little was known about the attitudes of Appalachian students toward colleges and, more specifically, their attitudes toward the relatively new community colleges. Significant implications for the study were obvious for college personnel and public school staffs in the immediate geographical region.

For college personnel, the study indicated that measured attitudes did not conform to generally preconceived attitudes ascribed to the Appalachian student. The description of extant attitudes provided a base for many decisions that were a matter of routine and could indicate a need for revised or radically new structures for delivery of services. A review of communications was indicated to determine the relevancy and timeliness of dissemination of information.

It was not known when the senior decides on post-high school plans. The study could help to determine whether "orientation day" during the senior year is appropriate or whether a program should be implemented during the pre-senior years. Whether adequate information reached the publics that needed the information was not at all clear at the time. Consideration might be given to the use of different media to reach different segments of the population, based upon analyses of attitudes held by various groups in the area.

Campus activities and other social programs conceivably might be redesigned or developed to meet the demand interests indicated by this research. Personnel of four-year colleges and the Southwest Virginia Community College should be able to determine relative positive and negative images of their institutions on the variables of social aspects and economic aspects, thus having reliable and

valid data on which to base decisions about their projected images.

On local levels, public high school teachers, administrators, and guidance counselors should review the results of this study to develop more effective college counseling programs. Occupational aspirations, academic achievements, and college choices could be more nearly synchronized in light of prevailing attitudes. Successes, failures, and difficulties with programs designed to equip students with salable job skills and the foundation for continuing education might be related to this study.

In summary, this study should provide data about attitudes that were unknown in the past. The data and consequent analysis will not have any significant intrinsic value; rather, the value will be in direct proportion to the use that is made of them. In this regard, the true significance of the study will be known only as a result of actions taken by colleges in the area and by local public high school officials.

## DEFINITIONS OF TERMS

### Administrators

The principal and assistant principal at the school level

### Attitude

> A relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or class of social objects[19]

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[19]Marvin E. Shaw and Jack M. Wright, Scales for the Measurement of Attitudes (New York: McGraw-Hill Book Company, 1967), p. 3.

Attitudinal Instrument

The instrument constructed and validated by the researcher to measure attitudes which were the focus of this study

College--Community College

> A college typically set up to meet the educational needs of a particular community and offering two-year training, either terminal or preparatory, in pre-professional and liberal arts fields; most community colleges are publicly controlled and are coeducational.[20]

College--Four-Year College

"A college offering a four-year curriculum above the high school level . . ."[21]

Counselors

Guidance counselors who help seniors prepare for college admission by giving advice, administering tests, or helping with the preparation of applications

Cumberland Plateau Planning District

Planning District Number Two located in the southwest part of Virginia which includes the counties of Buchanan, Dickenson, Russell, and Tazewell

Father

The biological father, step-father, or male guardian of a high school senior

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[20]Carter V. Good, ed., Dictionary of Education (3d ed.; New York: McGraw-Hill Book Company, 1973), p. 114.

[21]Good, p. 114.

Mother

The biological mother, step-mother, or female guardian of a high school senior

Post-High School Plans

What high school seniors plan to do after graduating from high school

Senior (High School)

A student in a twelfth-grade homeroom who plans to graduate at the end of the 1976-1977 regular term

SES (Status, Socioeconomic)

"The level indicative of both the social and the economic position of an individual or group."[22]

SVCC

The publicly supported community college (Southwest Virginia Community College) located in Planning District Number Two, serving the area known as the Cumberland Plateau Planning District

Teachers

Those teachers who had a high school senior enrolled in any of their classes at the time attitudes were measured

## PROCEDURES

The general procedures used in this study were as follows:

I. The related literature was reviewed.

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[22]Good, p. 558.

A. The libraries at East Tennessee State University and Southwest Virginia Community College were searched for pertinent journal articles, books, and other material.

B. Dissertation Abstracts and Psychological Abstracts were searched at East Tennessee State University.

C. Superintendents' annual reports and community college annual reports were reviewed.

II. Permission to conduct the study was obtained in writing from the superintendents of schools and the Community College President in the Cumberland Plateau Planning District.

III. An attitudinal instrument was constructed.

A. Items for the instrument were collected from ideas encountered in the literature and from discussions with personnel in higher education and in public schools.

B. Items were refined with the suggestions of professors of education and psychology, and public school personnel.

C. An instrument was prepared and subjected to a pilot test.

D. The revised instrument was administered as a field test to a selected sample from the population.

E. Attitude statements were analyzed and a reliability coefficient was computed to validate the instrument.

IV. Instructions were given to secondary supervisors on the administration procedures involving the attitudinal instrument.

V. The instrument was administered to high school seniors during a selected week.

VI. Data were recorded on computer cards and organized according to a predetermined plan.

VII. Data were subjected to analyses using appropriate statistics and interpreted accordingly.

VIII. A detailed explanation of the methodology employed in this study is presented in Chapter 3.

## ORGANIZATION OF THE STUDY

Chapter 1 includes an introduction, the problem, hypotheses, a rationale, the significance of the research, limitations, the procedures of the research, definitions of terms, and the organization of the dissertation.

Chapter 2 includes an exposition of relevant literature.

Chapter 3 includes the research design, the executed procedures to collect data, and the statistical treatment used to analyze data.

Chapter 4 includes the findings of the research.

Chapter 5 includes a summary of the research, conclusions, implications, and recommendations.

Chapter 2

# REVIEW OF LITERATURE

## DEMOGRAPHIC DATA OF POPULATION AREA

The Cumberland Plateau Planning District was composed of four counties in Southwest Virginia: Buchanan, Dickenson, Russell, and Tazewell. Three counties had borders contiguous with other states. The total population of the area reported as of July, 1973, was 117,400, with a school age population of 30,685.[1] See Table 1 on page 20.

The median school years completed by males twenty-five years old and over was 7.7; by females, 8.3; and for male and female totals, 8.0. The individual county medians were Buchanan, 7.6; Dickenson, 7.6; Russell, 8.2; and Tazewell, 8.6.[2] All counties had lower levels than the state median of 11.7 and in all counties the median was higher for females than for males.

Of 19,293 males between twenty and forty-nine years of age, and 23,230 females between fifteen and forty-four years of age, 4,137 males

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[1]University of Virginia, Tayloe Murphy Institute, "Estimates of the Population of Virginia Counties and Cities: July 1, 1972, and July 1, 1973," October, 1974, Tables 2 and 3, pp. 4, 6, and 7.

[2]Education Section, Division of State Planning and Community Affairs, "A Profile of Education in Virginia by Planning Districts" (mimeographed) Richmond, Virginia, June, 1976, p. 2, citing U. S. Department of Commerce, Bureau of the Census, 1970 Census of Population General Social and Economic Characteristics, "Table 120. Educational and Family Characteristics, for Counties and Independent Cities: 1970."

Table 1

Population of Cumberland Plateau Planning District

| County | Population April 1, 1970 | Population July 1, 1972 | Population July 1, 1973 |
|---|---|---|---|
| Buchanan | 32,071 | 33,200 | 33,000 |
| Dickenson | 16,077 | 17,200 | 17,300 |
| Russell | 24,533 | 24,800 | 24,800 |
| Tazewell | 39,816 | 42,200 | 42,300 |
| Total | 112,497 | 117,400 | 117,400 |

Source:

University of Virginia, Tayloe Murphy Institute, "Estimates of the Population of Virginia Counties and Cities: July 1, 1972 and July 1, 1973," October, 1974, Tables 2 and 3, pp. 4, 6, and 7.

and 5,788 females, or 23 percent, completed four years of high school; 2,037 males and 1,790 females or 9 percent, completed one or more years of college.[3] See Table 2.

In the four-county area, there were 1,660 high school graduates (1974) of which 298, or 18 percent, were attending four-year colleges; 335, or 20 percent, were attending two-year colleges; and 75, or 4.7 percent, were attending other institutions. That made a total of 708, or 42.7 percent, who were continuing education after high school. However, 952, or 57.3 percent, did not continue education after high school. See Table 3. See Table 4, page 24, for 1975 data.

The median adjusted gross income in 1974 was lower than the state median in three counties, but higher in Buchanan. See Table 5. It should be remembered that 1974 was an exceptional year for the coal industry, following the Arab oil boycott and the subsequent dramatic rise in prices of fuel. This probably accounted for substantial increases in incomes attributed to Buchanan County, which was primarily a one-industry (coal) area.

Income data on a per capita basis presented a much more accurate picture for the area as shown in Table 6. Historically, the area ranked far below the state figure, averaging in the range of from slightly below two-thirds to about three-fourths of the state per capita income. Although all counties were below the state, Russell and Dickenson lagged behind Buchanan and Tazewell. See Table 6.

Area seniors reported that they had some difficulty with achievement, behavior, and finances. Buchanan seniors reported the greatest

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[3]Education Section, Division of State Planning and Community Affairs, p. 10.

Table 2

Educational Characteristics of Adults Twenty-Five Years Old and Older in the Cumberland Plateau Planning District

| County | Median School Years Completed Male 25 Years Old and Over | Median School Years Completed Female 25 Years Old and Over | Median School Years Male and Female | Four Years H. S. Male (20-49) Years Old | Four Years H. S. Female (15-44) Years Old | % of Male and Female Population with Four Years H. S. | College One Year or More Male (20-49) | College One Year or More Female (15-44) | % of Male Population (20-49) and Female Population (15-44) with One Year or More College |
|---|---|---|---|---|---|---|---|---|---|
| Buchanan | 7.3 | 7.8 | 7.6 | 1,024 | 1,467 | 20 | 353 | 451 | 6 |
| Dickenson | 7.5 | 7.7 | 7.6 | 604 | 767 | 24 | 282 | 172 | 8 |
| Russell | 7.8 | 8.5 | 8.2 | 858 | 1,167 | 22 | 396 | 361 | 8 |
| Tazewell | 8.1 | 9.1 | 8.6 | 1,651 | 2,387 | 27 | 1,006 | 806 | 12 |
| Total | 7.7 | 8.3 | 8.0 | 4,137 | 5,788 | 23 | 2,037 | 1,790 | 9 |

Source:

Education Section, Division of State Planning and Community Affairs, "A Profile of Education in Virginia by Planning Districts," June, 1976, pp. 2 and 10.

Table 3

Status of 1974 High School Graduates in Cumberland Plateau Planning District

| County | Number of Graduates | | | Graduates Attending Four-Year Colleges | | | Graduates Attending Two-Year Colleges | | | Total Graduates Attending College | | | Total Graduates Attending Other Institutions | | | Total Graduates Not Continuing Education After High School | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| Buchanan | 190 | 227 | 417 | 16 | 34 | 50 | 50 | 55 | 105 | 66 | 89 | 155 | 12 | 10 | 22 | 112 | 128 | 240 |
| Dickenson | 150 | 118 | 268 | 26 | 26 | 52 | 12 | 9 | 21 | 38 | 35 | 73 | 9 | 5 | 14 | 103 | 78 | 181 |
| Russell | 175 | 187 | 362 | 34 | 33 | 67 | 26 | 39 | 65 | 60 | 72 | 132 | 2 | 3 | 5 | 113 | 112 | 225 |
| Tazewell | 330 | 283 | 613 | 63 | 66 | 129 | 81 | 63 | 144 | 144 | 129 | 273 | 21 | 13 | 34 | 165 | 141 | 306 |
| Total | 845 | 815 | 1,660 | 139 | 159 | 298 | 169 | 166 | 335 | 308 | 325 | 633 | 44 | 31 | 75 | 493 | 459 | 952 |

Source:

Education Section, Division of State Planning and Community Affairs, "A Profile of Education in Virginia by Planning Districts," June, 1976, pp. 156, 164, and 172.

Table 4

Enrollment, Grades 10-12 and High School Graduates, in Cumberland Plateau Planning District 1974-1975

| County and School | Enrollment | Graduates |
|---|---|---|
| Buchanan: | | |
| Council | 174 | 52 |
| Garden | 213 | 62 |
| Grundy | 835 | 189 |
| Hurley | 190 | 47 |
| Whitewood | 115 | 25 |
| Total | 1,527 | 375 |
| Dickenson: | | |
| Clintwood | 358 | 102 |
| Haysi | 282 | 67 |
| Irvinton | 205 | 45 |
| Total | 845 | 214 |
| Russell: | | |
| Castlewood | 379 | 104 |
| Honaker | 338 | 83 |
| Lebanon | 476 | 137 |
| Total | 1,193 | 324 |
| Tazewell: | | |
| Graham | 517 | 168 |
| Pocahontas | 174 | 56 |
| Richlands | 813 | 238 |
| Tazewell | 587 | 169 |
| Total | 2,091 | 631 |
| Grand Total | 5,656 | 1,544 |

Source:

State Board of Education, "Annual Report of the Superintendent of Public Instruction--1974-1975," December, 1975, pp. 46, 48, 58, and 60.

Table 5

Median Adjusted Gross Income in the Cumberland Plateau Planning District
1974

| County | Median Income |
|---|---|
| State | $9,105 |
| Buchanan | $9,775 |
| Dickenson | $8,522 |
| Russell | $7,980 |
| Tazewell | $8,652 |

Source:

University of Virginia, The Colgate Darden Graduate School of Business Administration, Tayloe Murphy Institute, "Distribution of Virginia Adjusted Gross Income by Income Class, 1974," May, 1976, Table I, pp. 5-6.

Table 6

Per Capita Personal Income for Cumberland Plateau Planning District Counties

| | 1970 | | 1971 | | 1972 | | 1973 | | 1974 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % | $ | % | $ | % |
| State | 3,712 | 100 | 4,001 | 100 | 4,400 | 100 | 4,874 | 100 | 5,333 | 100 |
| Buchanan | 2,420 | 65 | 2,553 | 64 | 2,911 | 66 | 3,357 | 69 | 3,969 | 74 |
| Dickenson | 2,154 | 58 | 2,244 | 56 | 2,612 | 59 | 2,951 | 61 | 3,356 | 63 |
| Russell | 2,341 | 63 | 2,446 | 61 | 2,761 | 63 | 3,014 | 62 | 3,476 | 65 |
| Tazewell | 2,779 | 75 | 2,957 | 74 | 3,311 | 75 | 3,557 | 73 | 3,871 | 73 |

Source:

University of Virginia, The Colgate Darden Graduate School of Business Administration, Tayloe Murphy Institute, "Personal Income Estimates for Virginia Cities and Counties, Selected Years, 1929 to 1974," May, 1976 (mimeographed), pp. 17, 19, and 21.

Table 7

Reported Achievement, Behavior, and Financial Problems of 1974-1975 Seniors in the Cumberland Plateau Planning District

| County | Achievement Problems | | | Behavior Problems | | | Financial Problems | | |
|---|---|---|---|---|---|---|---|---|---|
| | M | F | Total | M | F | Total | M | F | Total |
| Buchanan | 123 | 92 | 215 | 17 | 6 | 23 | 9 | 7 | 16 |
| Percent | 3.7 | 2.8 | 6.5 | .5 | .2 | .7 | .3 | .2 | .5 |
| Dickenson | 33 | 15 | 48 | 25 | 14 | 39 | 6 | 9 | 15 |
| Percent | 1.9 | .9 | 2.8 | 1.4 | .8 | 2.3 | .3 | .5 | .9 |
| Russell | 60 | 39 | 99 | 19 | 6 | 25 | 6 | 12 | 18 |
| Percent | 2.4 | 1.6 | 4.0 | .8 | .2 | 1.0 | .2 | .5 | .7 |
| Tazewell | 46 | 23 | 69 | 12 | 17 | 29 | 23 | 12 | 35 |
| Percent | 1.2 | .6 | 1.7 | .3 | .4 | .7 | .6 | .3 | .9 |

Source:

Division of Research and Statistics, State Department of Education, "Facing Up 10," Richmond, Virginia (mimeographed), March, 1976, pp. 18, 20, 25, and 26.

number of achievement problems, 6.5 percent, or 215 seniors. Russell was close behind with 4 percent. Behavior problems reported did not seem to be significant. Surprisingly, financial problems were reported by only 1 percent. This did not seem to correlate with the low per capita income reported for the area. Possible explanations seemed to center around two possibilities: (1) that those seniors with financial problems had dropped out of school; or (2) that seniors did not accurately report or perceive their true financial status. See Table 7, page 27.

Additional financial data were found in SVCC reports. An institutional narrative reported that 60 percent of 749 full-time students qualified for federal financial aid. A reported 60 percent of the area population over 25 years of age had not completed high school and only 4 percent had completed college degrees. The average student age at the institution was 25, reflecting enrollment of a considerable number of adults. About 45 percent of area seniors continued their education, with about 40 percent of those going to SVCC.[4]

## BACKGROUND OF SVCC

For many years the Cumberland Plateau Planning District did not have a publicly supported college within its boundaries. Bluefield College, located in Bluefield, Virginia, was the only institution of higher education in the District, but it was a private two-year college. All college-bound seniors attended colleges in other areas of Virginia or in other states.

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[4]Charles R. King, President, "Institutional Narrative," Title III, Developing Institutions Proposal, Basic Institutional Development (mimeographed), October, 1976, Item 1.

The Virginia Community College Act of 1966 mandated a network of community colleges to provide appropriate educational opportunities and programs to be available within driving distance of every citizen in the state. The state was divided into twenty-two regions called planning districts, and a community college was built in each.

Southwest Virginia Community College (SVCC) was located in the Cumberland Plateau Planning District, which included Buchanan, Dickenson, Russell, and Tazewell Counties. The college was designed to accommodate 350 credit students, but when the doors opened in the fall of 1968, 710 students enrolled.[5] The trend of increasing enrollment continued and by 1975, 1,821 students were attending on campus.[6]

The college, located at Richlands, was described as a developing institution in the heart of the rural Appalachian region of Virginia, serving a population that was 88 percent rural.[7] The population was isolated for many years, as previously noted, and, due to extremely low levels of educational achievement, there was an instantaneous market for the college's services, which probably contributed to a rapid increase in enrollment. For several years the college rented space in the area until new buildings were completed in 1973. This caused a corresponding increase in faculty, from an original twenty-six to seventy-six.[8]

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[5]Charles R. King, President, "Institutional Narrative," Title III Developing Institutions Proposal, Basic Institutional Development (mimeographed), October, 1976, Item 1.

[6]Virginia Department of Community Colleges, Student Enrollment Booklet, Fall Quarter, 1975, Richmond (mimeographed), December, 1975, Table 1A.

[7]King, Item 1. [8]King, Item 1.

In a proposal for federal funds, the college was described as being in an isolated part of Virginia outside the mainstream of higher education.[9] It was admitted that some difficulty was incurred in securing and retaining highly certificated personnel as a result of paltry, or non-existent, cultural opportunities and poor housing. However, a cursory review of the college program by this investigator indicated the college might rank very high among community colleges in Virginia.

The fall 1973 enrollment at the Community College (by residence) totaled 2,177 students, of which 2,074, or 95 percent, were from within the district; 529, or 24 percent, were from Buchanan; 64, or 3 percent, were from Dickenson; 465, or 21 percent, were from Russell; and 1,016, or 47 percent, were from Tazewell.[10]

## ATTITUDE, A CONSTRUCT

A construct, according to Carter V. Good, was "a property ascribed to two or more objects as a result of scientific observation, generally, a model designed with an awareness of the relationship which exists between data and the model . . ."[11]

Several men during the last quarter of the nineteenth century tried to establish a relationship between physical intensity and psychological intensity. According to several authors, including L. L. Thurstone, these early psychophysicists pioneered the field of

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[9]King, Item 1.

[10]King, Table 8.

[11]Carter V. Good, ed., Dictionary of Education (3d ed.; New York: McGraw-Hill Book Company, 1973), p. 130.

measurement which contributed to the later framework of attitudes and their measurement. Attitudes themselves were not measured but, as the definition indicated, "a property" was ascribed according to scientific observation. In early experiments it was the "intensity" of light and sound as measured by footcandles and decibels and the corresponding psychological brightness and psychological loudness. Those early attempts were limited to the measurement of simple sensory stimuli, until Cattell utilized essentially the same procedures to measure estimated degrees of eminence of scientific men. Thurstone and E. J. Chave reported that the study on a scale for measuring attitude toward the church was intended to continue the work of Cattell and to improve upon the technique of measuring social values.[12] Thurstone and Chave assumed that no thing could be measured directly; that things could be measured indirectly by describing one or more characteristics in numerical terms. Thus, they said, they could measure attitudes just as tables or men could be measured. They used the rejection and acceptance of opinion statements as the measurement of attitudes.[13]

Thurstone's technique was considered a classic in the field of attitude measurement and became the operational base for future experiments to refine the concept. Rensis Likert attempted to simplify the procedure used by Thurstone of establishing scale values by having judges sort statements into piles.[14] Likert thought the technique was

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[12]L. L. Thurstone and E. J. Chave, The Measurement of Attitude (Chicago: The University of Chicago Press, 1929), p. 3.

[13]Thurstone and Chave, pp. 6-8.

[14]Rensis Likert, "A Technique for the Measurement of Attitudes," Archives of Psychology, No. 140 (June, 1932), p. 6.

laborious and challenged the assumption that judges could rate statements without influence from their own attitudes. Likert proposed that scale values could be extracted from voting, which Thurstone earlier had suggested would be preferable to his technique of sorting. Thus the method of summated ratings was born.[15]

## INDEX MEASUREMENT

Robyn M. Dawes described the type of measurement used by rating scales as "index measurement."[16] It was called index measurement because the property of the attitude being indexed determined a corresponding index, but the relationship was only one way; that is, the measurement could not predict which behavior might occur if students were to check other rating scales. Dawes reported that this type of measurement is very useful if some prediction can be made about the potential behavior of subjects, the prediction relating to events which are outside the realm of those utilized in obtaining the measurement.[17]

Rating scales were used almost exclusively by public opinion pollsters to survey attitudes of voters and to predict which candidate most likely would win an election. The rating scale enjoyed equal popularity among sociologists and psychologists according to Dawes, who found that in 1970 approximately 60 percent of all studies reported in a professional journal used it.[18]

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[15]Likert, pp. 23-26.

[16]Robyn M. Dawes, Fundamentals of Attitude Measurement (New York: John Wiley and Sons, Inc., 1972), p. 13.

[17]Dawes, pp. 14-15.

[18]Dawes, p. 96.

## DETERMINANTS OF COLLEGE ATTENDANCE
## UNKNOWN QUANTITY

What is known about the determinants of college attendance was not clear to some authors. Elizabeth Douvan and Carol Kaye reported that there was a paucity of systematic information about the decision to go to college.[19] They stated further that "If we know little about the decision to go to college, we know even less about how adolescents choose the particular schools they enter."[20] James C. Hurst, Munsey, and Penn[21] found very few studies on the relationship between student and parent attitudes concerning college attendance before and after enrollment. Ronald S. Wilson and Robert J. Dollar[22] and David S. Mundel[23] echoed the lack of studies on factors influencing college selection.

Robert Birnbaum believed that higher education was essentially available to everybody and that interest should be focused not on motivating students to attend college, but on matching the student to the right institution. He reported that attitudinal research dealt primarily with attitudes of college students toward colleges and suggested that

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[19]Elizabeth Douvan and Carol Kaye, "Motivational Factors in College Entrance," The American College, ed. Nevitt Sanford (New York: John Wiley and Sons, Inc., 1967), p. 199.

[20]Douvan and Kaye, p. 216.

[21]James C. Hurst and others, "The Effect of College Attendance on Student-Parent Attitude Congruence: Enlargement of a 'Generation Gap,'" The Journal of College Student Personnel, XII (Summer, 1971), 340.

[22]Ronald S. Wilson and Robert J. Dollar, "Student, Teacher and Administrator Perceptions of the Junior College Environment," The Journal of College Student Personnel, XI (May, 1970), 213.

[23]David S. Mundel, "Student Choice and College Going," Change, VI (July-August, 1974), 50.

more emphasis be placed on researching high school students' attitudes toward higher institutions.[24] Samuel B. Cramer surveyed women students' attitudes about attending or not attending college after he found very little research on the subject.[25] T. R. McConnell and Paul Heist believed that college administrators were not interested in obtaining information about students at the time of entry into college other than the usual high school achievement scores and aptitude scores. They stated that comprehensive information on interests, values, motives, attitudes, special aptitudes, and cultural backgrounds was a rarity.[26] McConnell and Heist proposed that ". . . institutions are differentially selective or attractive, not only in students' academic ability, but also in the interests, values, attitudes, intellectual dispositions, and social backgrounds."[27]

Some of the statements about a lack of studies on seniors' attitudes were placed in a different context by Mervin B. Freedman. He believed that for years the social system of the United States was fairly well structured and students' personalities, attitudes, expectations, and goals had very little effect on college enrollment patterns. Since about 1965, he suggested, the situation changed radically with

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[24]Robert Birnbaum, "Student Attitudes Toward 2- and 4-Year Colleges," The Journal of Educational Research, LXV (April, 1972), 369.

[25]Samuel B. Cramer, "To College or Not To College? Market Survey of Student Decisions," College and University Business, LVI (March, 1974), 56.

[26]T. R. McConnell and Paul Heist, "The Diverse College Student Population," The American College, ed. Nevitt Sanford (New York: John Wiley and Sons, Inc., 1967), p. 226.

[27]McConnell and Heist, p. 236.

students' personalities and inner forces having greater impact than ever before in the past. He reported that students may be more interested in college for self actualization, to realize certain potentialities, to pursue vocational training. Thus, they might be drifting away from traditional programs.[28]

Ralph F. Berdie thought that attitudes of the family was one of the most critical factors affecting the decision to attend college. If parents respect learning and there is a tradition of relatives going to college, then youngsters usually go to college, he reported.[29]

Discussing some interpretations of his study, Berdie contemplated attitudes of students and their relationship to teachers and the high school. He believed that the school should help students identify and understand their attitudes and develop some implications for them.[30]

William C. Cross and Phillip N. Hacker, investigating the worth of college recruiting and "college" day programs at high schools, found that students were able to decide whether or not to attend college but were unable to decide which college they should attend.[31]

Although there was a paucity of research dealing with attitudes of seniors toward colleges, there were many studies that investigated

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[28]Mervin B. Freedman, "Education for What? Student Goals and Enrollment Trends," College and University, XLVIII (Summer, 1973), 783-787.

[29]Ralph F. Berdie, After High School What? (Minneapolis: The University of Minnesota Press, 1954), p. 20.

[30]Berdie, p. 85.

[31]William C. Cross and Phillip N. Hacker, "College Admissions Planning: A Professional Service for Students," Journal of the National Association of Women Deans and Counselors, XXXIV (Summer, 1971), 153-159.

college selection and its relationship to socio-economic measures. Many studies dealt with fathers' education and occupation, a few dealt with mothers' education and occupation. Many studies were concerned with high school students.

## COLLEGE SELECTION AND MEASURES OF FAMILY SOCIO-ECONOMIC STATUS

### College Selection and Parents' Education

Trent and Medsker did a massive study of 10,000 high school graduates which they reported in their book Beyond High School. They concluded that many factors were associated with college attendance, including two very important ones, academic ability and socio-economic status. Of the two, social status had more bearing, with a strong relationship existing between attendance and parents' educational levels. They found that 36 percent of the fathers and 32 percent of the mothers of college attenders had some college experience.[32]

Thomas J. Risch studied two groups of students at Indiana State University, one group whose parents were both college graduates and the other group whose parents were high school graduates, and concluded that it may be inaccurate to use educational level alone as a measure of social class.[33]

Mundel developed a model to help evaluate factors affecting student decisions to attend college. He concluded that one important

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[32]James W. Trent and Leland L. Medsker, Beyond High School (San Francisco: Jossey-Bass, Inc., 1968), pp. 1-28.

[33]Thomas J. Risch, "Expectations for the College Environment," The Journal of College Student Personnel, XI (November, 1970), 463-466.

factor is parents' education and that the effect of the father's education is greater than that of the mother's. When the father had completed college and the mother had completed high school, the probability of college attendance for the senior increased. He also reported that when family income rises, the importance of education as an influencing factor decreases.[34]

Edward L. McDill and James Coleman analyzed the effects of family background and peer influences on college intentions of high school freshmen and seniors. They found that during the freshman year, family background was a more significant factor relating to college attendance than was peer influence; but at the end of the senior year, peer influence had more impact. Father's education, the measure of family influence, was an important factor, but perhaps not the most important, according to this study.[35]

James W. Trent and Janet H. Ruyle studied the characteristics of college and non-college attenders among 10,000 high school graduates. They found that socio-economic status was closely associated with educational status, with 75 percent of students from professional families entering college; while 52 percent from white collar families, 37 percent from skilled worker families, and 28 percent from semi-skilled and unskilled families entered college. They concluded that social status had more bearing on college attendance than academic ability.[36]

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[34]Mundel, p. 50.

[35]Edward L. McDill and James Coleman, "Family and Peer Influences in College Plans of High School Students," Sociology of Education, XXXVIII (Winter, 1965), 112-126.

[36]James W. Trent and Janet H. Ruyle, "Variations, Flow, and Patterns of College Attendance," College and University, XLI (Fall, 1965), 61-76.

Harrison G. Gough used the Home Index to assess the relationship between socio-economic status, high school graduation, and college attendance. He found that home ownership was related significantly to graduation for both males and females and predicted college attendance as well as intellectual ability. The Home Index was slightly less accurate than academic achievement in predicting college attendance.[37]

David Gottlieb, exploring the relationship between social class and academic achievement, found that middle and upper class families generally assumed that their children would attend college, while lower class families did not take college attendance for granted. As for academic achievement, he found that lower class high achievers found encouragement and support from school personnel, often finishing in the top third of the class and attending college.[38] These findings were generally supported by Trent and Medsker's conclusion that students in lower socio-economic levels received less parental encouragement for college enrollment and persistence. They also found that about one-half of their subjects reported that no one person had been a great source of help, most selected parents and relatives, with teachers reported second most often. As for the kind of help received during high school, they ranked first, help with school work; second, attitude toward college; and third, choice of college. The greatest proportion

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[37]Harrison G. Gough, "Socioeconomic Status as Related to High School Graduation and College Attendance," Psychology in the Schools, VIII (July, 1971), 226-231.

[38]David Gottlieb, "Social Class, Achievement, and the College Going Experience," The School Review, LXX (Autumn, 1962), 273-286.

of responses came from persisters in college who reported help with attitudes toward college.[39] These authors believed that teachers in their direct contact role with students are better able than counselors to recognize and encourage bright students from lower socio-economic levels.[40]

According to Berdie's study of Minnesota high school seniors, about 35 percent planned to attend college, which just about equaled the number who actually attended.[41] The surprising thing about Berdie's finding was not the percent who actually attended, but that the percent attending equaled the percent who reported earlier as seniors that they planned to attend.

Financial Considerations

Berdie reported that although many economically poor students enter college, most college students come from economically stable homes; and that among the reasons for high ability students not attending college, lack of money may be the primary reason.[42] That economic status of the family plays an important role was reinforced by his finding that 90 percent of high ability students who had fathers in high level occupations planned to attend college, while only 55 percent of students of equal ability whose fathers were factory laborers planned to attend college.[43] Summarizing findings on parental attitudes toward college, Ben Willerman stated that "if a parent thinks of a college education primarily in terms of its contribution to the future

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[39]Trent and Medsker, pp. 224-237. [40]Trent and Medsker, p. 245.

[41]Berdie, p. 57. [42]Berdie, pp. 16-17. [43]Berdie, p. 59.

economic welfare of his child, he may seriously consider alternative means which promise financial rewards."[44] Those parents who held high esteem for general education perceived college as a necessity for their children, Willerman reported.

Mundel found that low income families considered cost to be important when selecting a college. Commuting costs, tuition, and room and board were important to them, but commuting costs were rated least important.[45]

Nancy Hubbell Bunnett administered the Mooney Problem Check List to 402 randomly selected freshmen at the University of Illinois to see if lack of parental financial support produced persistent financial problems and strained relationships between students and parents. She found that parental support significantly affected finances, living conditions, and employment, with women marking a significantly greater number of problems in finances than men.[46]

Charles R. Fields and Morris L. LeMay studied 2,801 prospective freshmen who applied for financial aid at Oregon State University for the 1969-1970 and 1970-1971 school years. Forty-five percent of the 1969-1970 group and 55 percent of the 1970-1971 group who did not receive financial aid matriculated, while 90 percent and 76 percent, respectively,

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[44]Ben Willerman, "Parental Attitudes Toward College," After High School What? ed., Ralph Berdie (Minneapolis: The University of Minnesota Press, 1954), p. 177.

[45]Mundel, p. 50.

[46]Nancy Hubbell Bunnett, "Parental Financial Support and the Financial and Family Problems of College Freshmen," Journal of College Student Personnel, XVI (March, 1975), 145-147.

of financial aid recipients matriculated.[47] The study did not determine what happened to those students who failed to receive the aid they applied for and did not matriculate. Whether they persisted in some other college was a matter for speculation.

Some evidence of the motivation of financially dependent students was suggested by Fields and LeMay's study. They found on a longitudinal basis of two years that both matriculated groups of aid recipients and non-recipients had higher grade point averages than matriculated non-applicants for aid groups.[48] They concluded that financial aid for the freshman year was critical for some students deciding whether to attend college, but aid was less important for a student deciding to stay in college.[49]

Donald E. Allen and Richmond E. Kinnard surveyed three grade levels in six senior high schools in a rural county to determine attitudes and preparation for post-high school educational financial problems. Questionnaire sets were completed by 322 students and parents. They explored finances and sources of support available for college and college orientation. On the six factors of college orientation (work; father's job; financial preparation; academic skill of student; rating of the student as a family member by the mother, father, and himself; and college preparation), college preparation was significantly affected by work and academic skill. The authors suggested this

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[47]Charles R. Fields and Morris L. LeMay, "Student Financial Aid: Effects on Educational Decisions and Academic Achievement," Journal of College Student Personnel, XIV (September, 1973), 426.

[48]Fields and LeMay, p. 426.

[49]Fields and LeMay, p. 428.

meant that the experience of some success led to a drive for more success.[50] Allen and Kinnard did not find a significant association for the father's job and sex, grade, aspiration, or academic performance. They did suggest that students nearing graduation assumed greater responsibility for work in keeping with parent and teacher expectations because they found that work was significantly affected by grades in school.[51] Allen and Kinnard concluded:

> . . . that the dynamic and functional factors suggestive of adaptation and development are strongly related to the high school students' preparation for entering college, while the static ascriptive factors (sex and race) have no significant effect.[52]

There were suggestions by some authors that high school students who work for pay have different characteristics than students who do not work for pay. Gerald L. Noblitt and William Asher surveyed 443 males and 356 females drawn from Project TALENT to determine how many hours a week they worked for pay and how work related to various measures of achievement, ability, SES, and post-high school plans. They stated that:

> The profile of the working high school senior boy reveals lower math, science, reading, and English skills. His IQ is lower, and he may have a difficult time concentrating while attempting to read. Foreign language courses are of less interest to him. He is likely to be more interested in vocational education and less interested in college training. He is more likely to have a car for his own use and is likely to date more.[53]

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[50]Donald E. Allen and Richmond E. Kinnard, "Academic Aspirations and Financial Preparations for College," Journal of Negro Education, XL (Spring, 1971), 127-129.

[51]Allen and Kinnard, pp. 129-130. [52]Allen and Kinnard, p. 132.

[53]Gerald L. Noblitt and William Asher, "Characteristics of Senior High School Students Who Work for Pay," Vocational Guidance Quarterly, XIX (June, 1971), 255-256.

Their profile of the working high school senior girl described her as follows: ". . . she has taken fewer English classes and also is less interested in further educational opportunities. She is more likely to earn her own spending money, and saving part of her money may be of importance to her."[54]

The Noblitt and Asher study suggested that certain economic attitudes may preclude enrollment in colleges; however, if students do enroll for post-high school education, they might be interested in acquiring vocational skills which offer more immediate employment and financial rewards.

## CHARACTERISTICS OF JUNIOR COLLEGE STUDENTS

Medsker and Dale Tillery analyzed the SCOPE project which included a survey of 1966 high school graduates in four states. They found that among two-year college enrollees all ability levels were represented with one-fifth of students coming from each of the highest and lowest quartiles. A large percentage of the graduates estimated their high school grades to be average or below. Many students indicated that while in high school they held high educational aspirations, 13 percent selected goals of more than a college degree, 41 percent selected four-year degrees, 25 percent selected the junior college as their top goal, and 19 percent selected vocational skills.[55] Looking

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[54]Noblitt and Asher, p. 256.

[55]Leland Medsker and Dale Tillery, Breaking the Access Barriers (New York: McGraw-Hill Book Company, 1971), pp. 38-39, quoting SCOPE Project, Center for Research and Development in Higher Education, University of California, Berkeley, Tillery, 1966.

further at ability levels by analyzing Project TALENT data, Medsker and Tillery found that among 400,000 high school students who did not go on to college, junior college students were more like non-college youth than four-year college students.[56]

Medsker and Tillery speculated that future community college enrollees would come from lower socio-economic groups since a large percentage of students with high ability and high socio-economic levels already attend college.[57]

## FEMALES' ASPIRATIONS

Richard Mowsesian studied educational and career aspirations of 436 females in an integrated high school in Texas. He found that as the girls proceeded from the ninth to the twelfth grade there was a decrease in aspiration for four years of college and an increase in aspiration for two years of college. Those who aspired for more education also aspired for higher occupations. He believed that girls became more reality-oriented during their high school years, taking into consideration careers and marriage as well as education.[58]

Michele Herman and William Sedlacek studied senior women at the University of Maryland and high school girls in Montgomery County. They concluded that non-career oriented women were more influenced by

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[56]Medsker and Tillery, p. 42, quoting Project TALENT, Cooley and Becker, pp. 464-469.

[57]Medsker and Tillery, p. 46.

[58]Richard Mowsesian, "Educational and Career Aspirations of High School Females," Journal of the National Association of Women Deans and Counselors, XXXV (Winter, 1972), 65-70.

family and peers, while career oriented women were more influenced by special people in certain occupations. The high school group placed less importance on college graduation than did the college group and they were also less career oriented. High school women were more influenced by monetary rewards than university women.[59]

After determining that little research existed on female attitudes toward entering college, Samuel Cramer did a survey for the public relations office of Russell Sage, a women's college in Troy, New York. He found that students alone decided which college to attend, that financial aid was crucially important, and that parents' influence on daughter's selection of a college was negligible compared with the reported importance of the college catalog as the prime source of information.[60]

## TEACHER ATTITUDES

Dennis W. Spuck and others conducted a study in six midwestern suburban high schools to determine differences in attitudes among high school freshmen, high school seniors, and high school teachers. Comparing attitudes the students actually reported and teacher perceptions of student attitudes, Spuck found that teachers misperceived and exaggerated student attitudes on three subscales: (1) work ethic; (2) political power; and (2) law and order. On the race subscale,

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[59]Michele Herman and William Sedlacek, "Career Orientations of High School and University Women," Journal of the National Association of Women Deans and Counselors, XXXVIII (Summer, 1974), 161-166.

[60]Samuel B. Cramer, "To College or Not To College? Market Survey of Student Decisions," College and University Business, LVI (March, 1974), 37.

teachers perceived students as having more traditional attitudes than themselves when in actuality there was no difference.[61]

## APPALACHIAN COLLEGES

Marc Landy and Mieko Landy, reporting on a change model for Appalachian colleges, described these institutions as isolated culturally and geographically, oblivious to contemporary problems. They characterized the colleges as breeding insularity and social irresponsibility. They reported, too, that college students from disadvantaged Appalachian areas displayed marked tenacity and ambition as they became first generation college attenders in their families.[62]

## POST-HIGH SCHOOL PLANS OF STUDENTS WHO SELDOM DISCUSS PLANS

Michelle Shapiro and William Asher studied 5,000 students who seldom discussed post-high school plans to determine some of their characteristics. They found that over half spoke to parents and their friends about post-high school plans, while approximately one-third did not discuss plans with teachers. Seniors who did not discuss plans were from lower socio-economic groups, had lower IQ's, demonstrated poorer study habits, received poorer grades, were poorer readers, had more difficulty communicating, and had fewer outside interests than those who discussed plans. Their parents were not well educated and

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[61]Dennis W. Spuck and others, "High School Attitudes in Transition," School Review, LXXXII (November, 1973), 107-115.

[62]Marc Landy and Mieko Landy, "Higher Learning in Appalachia: A Model for Change," Journal of Higher Education, XLII (March, 1971), 169-170.

mothers did not work or held low-paying jobs. Seniors who discussed plans had characteristics described as generally opposite to the non-discussers.[63]

## BIOGRAPHICAL DATA

Many authors recognized the value of collecting biographical data on college attenders and non-attenders. It was determined by them that aptitude alone was not a sufficient predictor of college attendance. Dale Prediger investigated the power of biographical data as a predictor of college attendance by surveying approximately 20,000 high school senior boys included in Project TALENT. Results showed that predictions based on biographical data combined with academic aptitude were superior to predictions based only on academic aptitude. Actually, there was little difference between predictions based on biographical data alone, and those based on biographical data and academic aptitude. Prediger suggested that biographical data could be viewed as intervening variables representing psychological factors that influence college attendance.[64]

## STUDENT EXPECTATIONS OF COLLEGE

Research indicated that different students held different expectations for colleges. Sometimes these expectations agreed with

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[63]Michelle Shapiro and William Asher, "Students Who Seldom Discuss Their Post High School Plans," School Counselor, XX (November, 1972), 103-108.

[64]Dale Prediger, "Biographical Data Differentiating College Attenders from Nonattenders at Various Ability Levels," Measurement and Evaluation in Guidance, II (Winter, 1970), 217-224.

expectations held by parents, teachers, and other groups; sometimes they did not. Larry A. Braskamp and Duane Flessner surveyed parents and students during a college orientation day to determine congruency of goals for college selection, similarity of vocational interests, and educational aspirations. They found that parents and students did not agree on the goals for attending college. Interest in vocational areas showed significant correlations for mother and student in nine of twelve groups and significance for only three of twelve groups for father and student. Educational levels of father and mother were not significantly correlated with study hours or degrees sought. A significant correlation was reported for expected grade average as reported by the mother-daughter group.[65]

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[65]Larry A. Braskamp and Duane Flessner, "The Congruency Between Parental and Entering Freshmen Expectations," Journal of College Student Personnel, XII (May, 1971), pp. 179-185.

# Chapter 3

# METHODOLOGY

## SOCIAL ATTITUDES

The social attitudes measured and reported in this study could not be defined with the precision that the population was defined, but the general cluster was described in such a manner that what was measured could be more clearly understood. Taking a broad view, "social" in this instance referred to interactions among the various peoples on the college campus. The variable of the attitude measured was the agreement or disagreement of the relative sociability of the community college and the four-year college. These ratings indicated the senior's perception of whether a dimension existed to a greater extent at a four-year college than it did at a community college.

It was believed that students generally selected a college that offered the same or nearly the same social environment that characterized the student's cultural heritage. Further, it was assumed that the four-year college represented a more cosmopolitan atmosphere, while the community college adhered more closely to localism. Attitude statements were assembled on that basis.

## ECONOMIC ATTITUDES

The economic attitudes described in this study were believed to cluster according to the conservatism or liberalism of making and spending money. A senior had many experiences involving money during his years as

a family member, in community interactions, and as a high school student. These experiences shaped the basic relationships between money and education which the student demonstrated in the senior year as he faced the choice of attending or not attending college.

Earlier experiences which perhaps revolved generally around an upper socio-economic class culture contributed to more or less liberal viewpoints toward making and spending money. It was realized, however, that intervening variables could have contributed to more or less conservative viewpoints toward money for some students from upper socio-economic classes. Similar analogous statements could be postulated about lower socio-economic classes.

As an illustration, a father who owned a business that made him relatively wealthy, aspired for his son to obtain a B. A. in business administration; in which case, due to his conservatism, he determined that the best path to reach the goal was for the son to take the first two years in a community college and transfer to a four-year institution for the final two years. In this case, it was assumed that the son held the same attitudes as the father. Thus, on a general basis, it was believed that those with lower incomes and those who operated on principles characteristic of lower incomes had more favorable attitudes toward community colleges. Conversely, those with higher incomes and those who operated on principles characteristic of higher incomes had more liberal attitudes and favored four-year colleges.

The variable of the economic attitude was the agreement or disagreement with liberalism or conservatism. Liberalism indicated favorable attitudes toward four-year colleges; conservatism indicated favorable attitudes toward community colleges.

## MAJOR TASKS

The major tasks of this study were to analyze attitudes of high school seniors and their teachers on the economic and social sub-scales and to compare them for significant differences.

The Cumberland Plateau Planning District was selected as the geographical area containing the population for this study. Virginia was divided into planning districts with a community college located in each service area, which in this case included the four counties of Buchanan, Dickenson, Russell, and Tazewell. There were fifteen high schools, with an eligible population of 1,573 seniors, and the Southwest Virginia Community College located in the area.

The proposed study was presented to the president of Southwest Virginia Community College, Dr. Charles King, who discussed it with the faculty of the college. A thumbnail sketch was presented to the superintendents of Buchanan, Dickenson, Russell, and Tazewell Counties, the population area of the study. Letters were received from these officials granting permission for the study and pledging cooperation.

## THE POPULATION

The population for the study included 1,573 seniors in the spring of 1977 in fifteen high schools in the Cumberland Plateau Planning District, which is the service area of the Southwest Virginia Community College at Richlands, Virginia. The counties and schools included were Buchanan County: Grundy Senior High, Hurley High, Garden High, Whitewood High, and Council High; Dickenson County: Clintwood High, Haysi High, and Irvinton High; Russell County: Castlewood High, Honaker High, and Lebanon High; Tazewell County: Tazewell High,

Pocahontas High, Graham High, and Richlands High.

## THE INSTRUMENT

Several attempts were made to locate a suitable instrument to measure attitudes described in this study. Research reports in professional journals were reviewed without success. Most research in the area of student perceptions of college was concerned with college students. The instrument used most often appeared to be CUES, College and University Environmental Scales. A specimen set was ordered from Educational Testing Service in Princeton, New Jersey, and found to be appropriate for measuring college students' perceptions of four-year colleges, but not for two-year colleges. A specimen set of another potentially appropriate instrument, Student Reactions to College, was reviewed upon the recommendation of the Educational Testing Service associate director of the Instituitonal Research Program for Higher Education. It was rejected also because it was designed to measure only two-year college students' perceptions about their colleges.

Since a suitable instrument could not be located, it was necessary to construct and validate an instrument to measure the attitudes of high school seniors in order to test the hypotheses of this study.

After discussing the task of constructing the instrument with professors of education at East Tennessee State University and reviewing relevant literature, a list was prepared containing 64 items for the social scale and 22 items for the economic scale. After considerable discussion and deliberation, additional items were formulated to bring the totals to 123 and 59 respectively. A third draft increased the

social scale to 133 items and the economic scale to 90 items. All items were refined and rewritten according to the "Suggested Criteria for Writing Attitude Statements" by Charles Wang[1] and "A Technique for the Measurement of Attitudes" by Rensis Likert.[2]

The technique used for construction of the scales was the Likert method discussed by Allen Edwards[3] in a chapter on "The Method of Summated Ratings." The Likert technique was critically reviewed in the literature and found to be acceptable, with some minor criticisms by Bartlett, Quay and Wrightsman;[4] Edwards and Kenney;[5] Ferguson;[6] Edwards and Kilpatrick.[7] The procedure included the task of making approximately one-half of the statements with the words "four-year colleges" appearing first in the comparison and the other half with the words "community colleges" appearing first in the comparison.

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[1]Charles K. A. Wang, "Suggested Criteria for Writing Attitude Statements," Journal of Social Psychology, III (1932), 367-373.

[2]Rensis Likert, "A Technique for the Measurement of Attitudes," Archives of Psychology, No. 140 (June, 1932), pp. 44-52.

[3]Allen L. Edwards, Technique of Attitude Scale Construction (New York: Appleton-Century-Crofts, Inc., 1957), pp. 149-171.

[4]Claude J. Bartlett, Lorene Childs Quay, and L. S. Wrightsman, Jr., "A Comparison of Two Methods of Attitude Measurement: Likert-Type and Forced Choice," Educational and Psychological Measurement, XX (1960), 699-704.

[5]Allen L. Edwards and Kathryn Claire Kenney, "A Comparison of the Thurstone and Likert Techniques of Attitude Scale Construction," Journal of Applied Psychology, XXX (February, 1946), 72-83.

[6]Leonard W. Ferguson, "A Study of the Likert Technique of Attitude Scale Construction," The Journal of Social Psychology, XIII (1941), 51-57.

[7]Allen Edwards and Franklin P. Kilpatrick, "A Technique for the Construction of Attitude Scales," Journal of Applied Psychology, XXXII (1948), 374-384.

These items were submitted to a panel of six judges to review and evaluate according to Wang's criteria to determine clarity, relevancy, and adequacy. See Appendix E for instructions given to evaluators. The judges included a professor of education, two professors of psychology, a dean of instruction at a community college, a high school principal, and two supervisors of public school education. Some suggestions and recommendations by the evaluators were incorporated in the items which represented the fourth draft.

The retained and refined items were prepared in a Likert format with a five-point scale: strongly agree, agree, undecided, disagree, and strongly disagree. The instrument was administered to nine seniors in a selected high school. According to the guidance counselor, three of the seniors planned to attend a four-year college, three planned to attend a community college, and three did not plan for post-secondary education.

The nine completed instruments were analyzed by plotting a frequency distribution for each item and by personal interviews with each subject in the pilot test. Consequently, several phrases and words were deleted, while it was determined that several the writer thought were suspicious were retained. The approximately one-half hour interview with each subject revealed that the seniors clearly understood the directions, format, and intent of the questionnaire.

After the pilot test with nine seniors, the instrument was edited for the fifth and final time. The social scale had ninety-one items, the economic scale had sixty-four items. Items were assigned to the instrument by using a table of random numbers. It was then retyped and distributed to every twelfth senior in each high school

in the four-county area comprising the population for the study. High school guidance counselors were selected to administer the instrument to seniors. They were given a copy of printed instructions as presented in Appendix E. Also, letters of approval for the conduct of the study from each of the division superintendents, the president of SVCC, and a copy of the approval form for the prospectus of this dissertation were included. See Appendix E.

The secondary supervisor in each county acted as coordinator for distribution and collection of instruments. Each supervisor was thoroughly acquainted with the purpose of the research and the procedures to follow for the field test. All instruments were administered and collected during the same week.

A total of 151 instruments were distributed for the field test. Of these, five blank copies were returned and there were four unusable replies, leaving 142 as the N for the field test. Item analysis was conducted according to the procedure described by Edwards.[8] Response modes were weighted as follows: strongly disagree--0, disagree--1, undecided--2, agree--3, and strongly agree--4. The procedure was to calculate a total raw score for each of the 142 subjects for the social scale and for the economic scale. Scores were then arranged in descending order for the social scale. The thirty-five subjects with the highest scores, representing approximately the top 25 percent of the group, and the thirty-five subjects with the lowest scores, representing approximately the bottom 25 percent of the group, were chosen

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[8]Allen L. Edwards, Technique of Attitude Scale Construction (New York: Appleton-Century-Crofts, Inc., 1957), pp. 149-171.

as criterion reference groups. This was repeated for the economic scale. These groups were called the high group and the low group.

For the high group, a frequency distribution was constructed for each item on the social scale to determine how many subjects selected each of the five response modes. A mean was calculated for each item. This was repeated for the low group. The means of the low group were subtracted from the means of the high group to determine the differences for each item. The differences of the means were ranked according to the magnitude of the differences and the twenty-five items with the greatest magnitude were selected for the final instrument. This was repeated for the economic scale. See Appendix A for the item analysis data.

The split-halves method was used to determine the reliability co-efficient corrected by the Spearman-Brown forumla.[9] The formulas used were:

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

Correction for full test:

$$\text{Reliability on full test} = \frac{2 \times \text{Reliability on } \frac{1}{2} \text{ test}}{1 + \text{Reliability on } \frac{1}{2} \text{ test}}$$

The twenty-five items selected for the final social scale were taken in the same sequence as they appeared in the field test. The first item selected was item number two, the second was item number four, the third was item number eight, and so on. Item number two was listed on the final instrument as item number one, item number four

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[9]Norman E. Gronlund, Measurement and Evaluation in Teaching (New York: The Macmillan Company, 1971), p. 106.

was listed as item number two, and item number eight was listed as item number three. Thus the odd-even sequence was determined. See Appendix B for the instrument.

To calculate the reliability co-efficient, the sum of all the thirteen odd-numbered items and the sum of all the twelve even-numbered items were listed as X and Y scores for each of the 142 subjects. On the social scale, four subjects had not responded to one or more of the items selected for the final scale. These scores were not listed, leaving 138 as the N for the calculation of the reliability co-efficient. The same sequence was followed for the economic scale. See Appendix A for computational data.

The reliability co-efficient for the social scale was .8633 for the half test and .9266 for the full test. For the economic scale, the co-efficient was .4998 for the half test and .67 for the full test. James L. Bruning and B. L. Kintz reported that a reliability value of .70 or higher indicated that a test reliably measures what it purports to measure.[10] Using this standard, the social scale rated very favorably and was accepted. However, it was determined that the results obtained by using the economic scale could not be treated with enough confidence to draw conclusions, make inferences, or to generalize. Consequently, the economic scale was not used for final data collection. All data pertaining to the development of the scale are presented in Appendix A for interested researchers.

The final instrument, consisting of twenty-five items on the

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[10]James L. Bruning and B. L. Kintz, Computational Handbook of Statistics (Glenview, Illinois: Scott, Foresman, and Company, 1968), p. 188.

social scale, and a biographical data form were administered to all seniors in the population area who did not participate in the development of the instrument. Only the social scale was administered to teachers of high school seniors.

The secondary supervisors of all counties in the population area were contacted and given instructions on the procedures to follow in administering the attitude instrument. Time was limited to control extraneous variables associated with the passage of time. The instrument was administered to all seniors during the given week and, for all practical purposes, represented the total population. Instruments were coded so that counties and schools could be identified.

Biographical Data Form

A personal data form was given, in addition to the attitudinal instrument, to collect the following background information: name, sex, school, father's occupation, father's education, mother's occupation, mother's education, expected future occupation of the respondent, expected amount of education to be achieved in the future (and how much education should be achieved by today's seniors for tomorrow's world), post-high school plans, when post-high school plans were decided, who had the most influence on the seniors' educational aspirations, and the number of siblings.

Level of Education Scale

A level of education scale was constructed for the intended population. The scale used was:

1. Received graduate school degree
2. Attended graduate school
3. Received a two-year college degree

4. Received a four-year college degree
5. Attended a two-year college
6. Attended a four-year college
7. Attended technical, special school
8. Received high school diploma
9. Attended high school
10. Completed elementary school (seventh grade)
11. Completed less than seven grades

For summary and comparative purposes, the education scale was trichotomized according to a high level (categories 1-7), medium level (category 8), and low level (categories 9-11).

To record the level of education that seniors expect to achieve and the level of education that they perceive should be achieved by today's seniors for tomorrow's world, the following scale was used:

1. Graduate school degree
2. Attend graduate school
3. Receive college degree
4. Attend college
5. Attend technical, special school
6. Receive high school diploma

Occupational Category Scale

To record the occupational status of fathers and mothers and the expected future occupations of seniors, the classification system utilized by the U. S. Census Bureau to record the 1960 decennial census was used. The classification scheme used the following twelve broad categories:

| | Owner | Manager | Laborer |
|---|---|---|---|
| 1. Agriculture, forestry, and fisheries | ____ | ____ | ____ |
| 2. Mining | ____ | ____ | ____ |
| 3. Construction | ____ | ____ | ____ |
| 4. Manufacturing | ____ | ____ | ____ |
| 5. Transportation, communication, and other public utilities | ____ | ____ | ____ |
| 6. Finance, insurance, real estate | ____ | ____ | ____ |
| 7. Wholesale and retail trade | ____ | ____ | ____ |
| 8. Business and repair services | ____ | ____ | ____ |
| 9. Personal services | ____ | ____ | ____ |
| 10. Entertainment and recreation services | ____ | ____ | ____ |
| 11. Professional and related services | ____ | ____ | ____ |
| 12. Public administration | ____ | ____ | ____ |

For summary and comparative purposes, the occupational scale was dichotomized according to blue collar (categories 1-5 and 9) and white collar (categories 6-8 and 10-12). Two other categories were added to handle expected responses not indicated above. They were (1) housewife and (2) unemployed. Occupations also were grouped according to an alternative scheme using the categories owner, manager, and laborer.

Post-High School Plans

A scale was devised to record anticipated post-high school plans as reported on the personal data form. This scale contained the following choices:

1. Attend a two-year college
2. Attend a four-year college
3. Attend other type of post-secondary school
4. Enter military service
5. Get a job
6. Travel
7. Get married (no outside job)
8. No definite plans
9. Do not know

For summary and comparative purposes, post-high school plans were dichotomized according to those who planned to attend college (categories 1-2) and those who did not plan to attend college (categories 3-9).

When Post-High School Plans Were Decided

To record the time element associated with decisions involving post-graduation plans, the following four-factor scale was used:

1. Have not yet decided
2. Decided this year
3. Decided in the eleventh grade
4. Decided before the eleventh grade

Person Influencing Plans

In an effort to determine who was perceived by the senior as having the most influence on his educational aspirations, the following statement and categories were included on the personal data form:

Who had the most influence on your educational aspirations?

Please indicate by placing ONLY ONE "x" in the appropriate blank.

_____ Father

_____ Mother

_____ Brother

_____ Sister

_____ Relative

_____ Principal

_____ Teacher

_____ Guidance Counselor

_____ Friends

_____ Other

Number of Siblings

To determine the size of the senior's family, the respondent was asked to list the number of brothers and sisters in his or her family. To determine family size the numbers were grouped according to four levels: no siblings, one or two siblings, three or four siblings, and five or more siblings.

## DATA TREATMENT

The data collected were coded according to a predetermined format for a computer program on the IBM 370 at East Tennessee State University. Data were organized to produce frequency distributions, percents, means, and standard deviations by class items. Most data were reported by sex, by school, by county, and by entire population.

For a measure of central tendency, arithmetic means were calculated for attitudes toward community colleges and four-year colleges. They were reported for the following groups: (1) senior males,

(2) senior females, and (3) seniors' teachers. Seniors' scores were grouped according to the following measures: (1) fathers' education, (2) fathers' occupation, (3) mothers' education, (4) mothers' occupation, (5) size of family, and (6) post-high school plans.

To test hypotheses, differences of means were subjected to a multiple classification of analysis of variance and t-tests to determine significance. The confidence level of $p = \leq .05$ was selected to determine significance; however, all levels obtained were reported.

Hypothesis 16 was subjected to a Pearson product moment correlation coefficient.

# Chapter 4

## DATA AND FINDINGS

There were fifteen high schools in four counties included in this study. There were 1,340 seniors and 278 teachers who responded to 25 attitude statements about four-year colleges and community colleges. The problem of this study was to compare the attitudes of high school seniors toward four-year colleges and community colleges according to the selected factors of (1) sex, (2) mothers' education and occupation, (3) fathers' education and occupation, (4) number of siblings, (5) teachers' attitudes, (6) counties, and (7) post-high school plans. Biographical data which were thought to be incidental and important to the investigation of the problem were collected. These data were concerned with seniors only and included (1) the time frame when seniors decided their post-high school plans, (2) immediate plans upon graduation, (3) who had the most influence upon seniors' educational aspirations, (4) how much education seniors expected to achieve, (5) the level of education seniors thought should be achieved, and (6) the intended occupation seniors expected to select when they entered the job market. These data and the tests of hypotheses are presented in this chapter.

Tables displaying data collected in this study were organized to show the number and percent of responses for selected categories according to counties and the total population. Descriptions, unless otherwise noted, refer to these tables. Back-up tables, presenting

data by schools within each of the four counties were numbered to correspond to tables by counties and were included in Appendix C. Readers interested only in the larger picture as it relates to the four counties and to the entire area need only read this chapter. Those interested in pursuing the data into smaller units by schools should scrutinize Appendix C.

## PERCENTAGE OF RETURNS

Table 8 shows the number of seniors eligible for the study and the number and percentage of respondents by sex, by school, and by county. Of the 1,573 seniors eligible for final data collection, 1,340 responded for a return percentage of 85.19. The highest return rate was 95.45 percent from Irvinton in Dickenson County and the lowest return rate was 74.31 percent from Castlewood in Russell County.

A total of 232 teachers responded as follows: 78 from Buchanan County, 27 from Dickenson County, 54 from Russell County, and 73 from Tazewell County. Only those teachers who had a senior enrolled in any of their classes were eligible to respond to the attitude statements. It was assumed that nearly 100 percent of eligible teachers responded.

## EDUCATIONAL LEVELS OF FATHERS

Educational levels of fathers were reported on the same scale used for mothers. Table 9 shows that 283, or 21.1 percent, of 1,340 seniors reported fathers with more than a high school education. That was slightly higher than the percentage reported for mothers, 18.6 percent. Seniors reported that 248, or 18.5 percent of fathers, had high school diplomas and that another 341, or 25.4 percent, had attended

Table 8

Enrollment and Respondents by County, School, and Sex

| School | Enrollment | Respondents | | | | | | | | Return Percentage |
|---|---|---|---|---|---|---|---|---|---|---|
| | Eligible Seniors | Sex Not Reported | | Senior Males | | Senior Females | | Total Seniors | | |
| | # | # | % | # | % | # | % | # | % | % |
| Council | 45 | 0 | 0.0 | 20 | 47.6 | 22 | 52.4 | 42 | 100.0 | 93.33 |
| Garden | 59 | 2 | 4.3 | 23 | 48.9 | 22 | 46.8 | 47 | 100.0 | 79.66 |
| Grundy | 190 | 4 | 2.6 | 70 | 45.8 | 79 | 51.6 | 153 | 100.0 | 80.53 |
| Hurley | 40 | 1 | 2.6 | 17 | 44.7 | 20 | 52.6 | 38 | 100.0 | 95.00 |
| Whitewood | 38 | 0 | 0.0 | 15 | 42.9 | 20 | 57.1 | 35 | 100.0 | 92.11 |
| Buchanan County Total | 372 | 7 | 2.2 | 145 | 46.0 | 163 | 51.7 | 315 | 100.0 | 84.86 |
| Clintwood | 90 | 3 | 3.4 | 42 | 47.2 | 44 | 49.4 | 89 | 100.0 | 98.89 |
| Haysi | 91 | 3 | 3.8 | 37 | 46.8 | 39 | 49.4 | 79 | 100.0 | 86.81 |
| Irvinton | 44 | 0 | 0.0 | 25 | 59.5 | 17 | 40.5 | 42 | 100.0 | 95.45 |
| Dickenson County Total | 225 | 6 | 2.9 | 104 | 49.5 | 100 | 47.6 | 210 | 100.0 | 93.3 |

Table 8 (continued)

| School | Enrollment | Respondents | | | | | | | | Return Percentage |
|---|---|---|---|---|---|---|---|---|---|---|
| | Eligible Seniors | Sex Not Reported | | Senior Males | | Senior Females | | Total Seniors | | |
| | # | # | % | # | % | # | % | # | % | % |
| Castlewood | 109 | 1 | 1.2 | 37 | 45.7 | 43 | 53.1 | 81 | 100.0 | 74.31 |
| Honaker | 107 | 1 | 1.0 | 41 | 42.7 | 54 | 56.3 | 96 | 100.0 | 81.88 |
| Lebanon | 157 | 1 | .8 | 66 | 50.0 | 65 | 49.2 | 132 | 100.0 | 89.72 |
| Russell County Total | 373 | 3 | 1.0 | 144 | 46.6 | 162 | 52.4 | 309 | 100.0 | 82.8 |
| Graham | 138 | 3 | 2.7 | 50 | 44.2 | 60 | 53.1 | 113 | 100.0 | 81.88 |
| Pocahontas | 41 | 0 | 0.0 | 18 | 48.6 | 19 | 51.4 | 37 | 100.0 | 90.24 |
| Richlands | 246 | 1 | 0.5 | 109 | 51.2 | 103 | 48.4 | 213 | 100.0 | 86.59 |
| Tazewell | 178 | 2 | 1.4 | 73 | 51.0 | 68 | 47.6 | 143 | 100.0 | 80.34 |
| Tazewell County Total | 603 | 6 | 1.2 | 250 | 49.4 | 250 | 49.4 | 506 | 100.0 | 83.9 |
| Grand Total | 1,573 | 22 | 1.6 | 643 | 48.0 | 675 | 50.4 | 1,340 | 100.0 | 85.19 |

Table 9

Educational Levels of Seniors' Fathers by County

| Category | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 8 | 2.5 | 10 | 4.8 | 21 | 6.8 | 20 | 4.0 | 59 | 4.4 |
| Attended Graduate School | 5 | 1.6 | 3 | 1.4 | 4 | 1.3 | 11 | 2.2 | 23 | 1.7 |
| Received Two-Year College Degree | 3 | 0.9 | 2 | 0.9 | 5 | 1.6 | 16 | 3.2 | 26 | 1.9 |
| Received Four-Year College Degree | 7 | 2.2 | 8 | 3.8 | 5 | 1.6 | 17 | 3.4 | 37 | 2.8 |
| Attended a Two-Year College | 3 | 0.9 | 0 | 0.0 | 2 | 0.7 | 7 | 1.4 | 12 | 0.9 |
| Attended a Four-Year College | 4 | 1.3 | 2 | 0.9 | 5 | 1.6 | 13 | 2.6 | 24 | 1.8 |
| Attended Technical, Special School Beyond High School | 13 | 4.1 | 16 | 7.6 | 19 | 6.2 | 54 | 10.7 | 102 | 7.6 |
| Received a High School Diploma | 40 | 12.7 | 30 | 14.3 | 60 | 19.4 | 118 | 23.3 | 248 | 18.5 |
| Attended High School | 88 | 27.9 | 50 | 23.8 | 89 | 28.8 | 114 | 22.5 | 341 | 25.4 |
| Completed Elementary School | 41 | 13.0 | 47 | 22.4 | 34 | 11.0 | 44 | 8.7 | 166 | 12.4 |
| Completed Less Than Seven Grades | 91 | 28.9 | 36 | 17.1 | 57 | 18.5 | 73 | 14.4 | 257 | 19.1 |
| No Response | 12 | 3.8 | 6 | 2.9 | 8 | 2.6 | 19 | 3.8 | 45 | 3.4 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

high school. A total of 423, or 31.5 percent, had only "completed elementary school" and "completed less than seven grades." In general, fathers had lower educational levels than mothers. Buchanan County ranked lower than the other counties, followed by Dickenson, Russell, and Tazewell, in that order.

Very small percentages were reported for fathers and mothers who attended community colleges or received community college degrees. This probably reflected the unavailability of community colleges for that generation of high school graduates, since the Virginia system of community colleges was initiated in 1966.

## EDUCATIONAL LEVELS OF MOTHERS

Educational levels of mothers were reported by seniors on an eleven-factor scale. Table 10 shows that of 1,340 seniors, 249, or 18.6 percent, reported mothers with more than a high school education. Only 373, or 27.8 percent of mothers, were reported to have high school diplomas; while 409, or 30.5 percent, had only attended high school. Another 250, or 18.6 percent, completed elementary school or completed less than seven grades. These population figures were generally uniform for most categories and counties except that Tazewell County had considerably more mothers, 172, or 34 percent, who received high school diplomas than did either Buchanan, 66, or 21 percent, or Dickenson, 44, or 21 percent. On the other hand, Buchanan and Dickenson had more mothers in the two categories of "completed elementary school" and "completed seven grades or less," 80, or 25.4 percent, and 57, or 27.2 percent, respectively, than did Russell, 46, or 14.9 percent, or Tazewell, 64, or 13.2 percent.

Table 10

Educational Levels of Seniors' Mothers by County

| Category | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 11 | 3.5 | 6 | 2.9 | 13 | 4.2 | 22 | 4.4 | 52 | 3.9 |
| Attended Graduate School | 6 | 2.0 | 1 | .5 | 4 | 1.3 | 4 | .8 | 15 | 1.1 |
| Received Two-Year College Degree | 8 | 2.5 | 5 | 2.4 | 8 | 2.6 | 14 | 2.8 | 35 | 2.6 |
| Received Four-Year College Degree | 8 | 2.5 | 4 | 1.9 | 10 | 3.2 | 18 | 3.6 | 40 | 3.0 |
| Attended a Two-Year College | 8 | 2.5 | 5 | 2.4 | 5 | 1.6 | 10 | 2.0 | 28 | 2.1 |
| Attended a Four-Year College | 5 | 1.6 | 9 | 4.3 | 4 | 1.3 | 8 | 1.6 | 26 | 1.9 |
| Attended Technical, Special School Beyond High School | 5 | 1.6 | 6 | 2.9 | 11 | 3.6 | 31 | 6.1 | 53 | 4.0 |
| Received a High School Diploma | 66 | 21.0 | 44 | 21.0 | 91 | 29.5 | 172 | 34.0 | 373 | 27.8 |
| Attended High School | 104 | 33.0 | 64 | 30.5 | 107 | 34.6 | 134 | 26.5 | 409 | 30.5 |
| Completed Elementary School | 40 | 12.7 | 35 | 16.7 | 25 | 8.1 | 29 | 5.7 | 129 | 9.6 |
| Completed Less Than Seven Grades | 40 | 12.7 | 22 | 10.5 | 21 | 6.8 | 38 | 7.5 | 121 | 9.0 |
| No Response | 14 | 4.4 | 9 | 4.3 | 10 | 3.2 | 26 | 5.1 | 59 | 4.4 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

## EDUCATION OF SENIORS' FATHERS BY THREE LEVELS

The first seven categories of education, all those above the category labelled "received a high school diploma," were grouped together and called "high level." The category "received a high school diploma" was called "medium level," and the two categories labelled "completed elementary school" and "completed less than seven grades" were grouped and called "low level." Table 11 shows that of 1,184 seniors reporting, 260, or 22 percent, reported fathers with high level education; 220, or 18.6 percent, reported fathers with medium level education; and 679, or 57.4 percent, reported fathers with low level education. Only 25, or 2.1 percent, failed to respond to the question.

Among the counties, more Tazewell fathers were in the high level category, 128, or 28.7 percent, and the smallest group was in Buchanan, 39, or 14.3 percent. The same pattern was true for the medium level. In the low level category, the largest group was in Buchanan, 194, or 71.1 percent, and the smallest group was in Tazewell, 202, or 45.3 percent.

## EDUCATION OF SENIORS' MOTHERS BY THREE LEVELS

Table 11 shows the number and percent of mothers by the three levels that were used to classify fathers. There were 229, or 19.3 percent of 1,184 mothers, reported in the high level category; 333, or 28.1 percent, in the medium category; and 583, or 49.3 percent, in the low level category. Only 39, or 3.3 percent, did not respond. As was the case with fathers, there were more Tazewell mothers, 100, or 22.4 percent, in the high level category than in any other county; and Buchanan had the smallest number, 45, or 16.5 percent. In the medium

Table 11

Frequency of Three Levels of Education
for Seniors' Fathers and Mothers
by County

| | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Fathers: | | | | | | | | | | |
| No Response | 7 | 2.6 | 2 | 1.1 | 6 | 2.2 | 10 | 2.2 | 25 | 2.1 |
| High Level | 39 | 14.3 | 36 | 19.1 | 57 | 20.6 | 128 | 28.7 | 260 | 22.0 |
| Medium Level | 33 | 12.1 | 28 | 14.9 | 53 | 19.1 | 106 | 23.8 | 220 | 18.6 |
| Low Level | 194 | 71.1 | 122 | 64.9 | 161 | 58.1 | 202 | 45.3 | 679 | 57.4 |
| Total | 273 | 100.0 | 188 | 100.0 | 277 | 100.0 | 446 | 100.0 | 1,184 | 100.0 |
| Mothers: | | | | | | | | | | |
| No Response | 10 | 3.7 | 6 | 3.2 | 7 | 2.5 | 16 | 3.6 | 39 | 3.3 |
| High Level | 45 | 16.5 | 34 | 18.1 | 50 | 18.1 | 100 | 22.4 | 229 | 19.3 |
| Medium Level | 53 | 19.4 | 41 | 21.8 | 83 | 30.0 | 156 | 35.0 | 333 | 28.1 |
| Low Level | 165 | 60.4 | 107 | 57.0 | 137 | 49.5 | 174 | 39.0 | 583 | 49.3 |
| Total | 273 | 100.0 | 188 | 100.0 | 277 | 100.0 | 446 | 100.0 | 1,184 | 100.0 |

level category, there were more Tazewell mothers, 156, or 35 percent, than in other counties; and the smallest group was in Buchanan, 53, or 19.4 percent. In the low level category, Buchanan had more mothers, 165, or 60.4 percent; while Tazewell had the smallest number, 174, or 39.0 percent.

Comparing educational levels of mothers with fathers, Table 11 shows there were slightly more fathers than mothers in the high level category, 22 percent to 19.3 percent, but there were also far more fathers than mothers in the low level category, 57.4 percent to 49.3 percent. Many more mothers, 28 percent, than fathers, 18.6 percent, were in the medium level. The overall picture is that, on the average, mothers had more education than fathers.

## OCCUPATIONS OF FATHERS BY THIRTEEN CLASSIFICATIONS

Table 12 shows that a small group of fathers, 55, or 4.1 percent, was engaged in agriculture, forestry, and fisheries. The largest group was reported in Russell, 29, or 9.4 percent; while the smallest group was reported in Buchanan, 5, or 1.6 percent. The largest occupational category, mining, which is the major industry in the area, yielded 171, or 54.3 percent, fathers in Buchanan; 112, or 53.3 percent, in Dickenson; 118, or 38.2 percent, in Russell; 178, or 35.2 percent in Tazewell; and 579, or 43.2 percent, for the entire population.

The second largest group reported for the entire area was that of unemployed, 135, or 10.1 percent. The categories with the next largest groups were construction, 96, or 7.2 percent; transportation, communication, and other public utilities, 71 or 5.3 percent; business and repair services, 66, or 4.9 percent; and professional and related

Table 12

Occupations of Seniors' Fathers by Thirteen Classifications by County

| Occupational Classification | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 5 | 1.6 | 8 | 3.8 | 29 | 9.4 | 13 | 2.6 | 55 | 4.1 |
| Mining | 171 | 54.3 | 112 | 53.3 | 118 | 38.2 | 178 | 35.2 | 579 | 43.2 |
| Construction | 14 | 4.4 | 13 | 6.2 | 34 | 11.0 | 35 | 6.9 | 96 | 7.2 |
| Manufacturing | 3 | 1.0 | 5 | 2.4 | 14 | 4.5 | 26 | 5.1 | 48 | 3.6 |
| Transportation, Communication, Other Public Utilities | 11 | 3.5 | 10 | 4.8 | 19 | 6.1 | 31 | 6.1 | 71 | 5.3 |
| Wholesale and Retail Trade | 13 | 4.1 | 9 | 4.3 | 11 | 3.6 | 32 | 6.3 | 65 | 4.9 |
| Finance, Insurance, Real Estate | 2 | 0.6 | 1 | 0.5 | 3 | 1.0 | 12 | 2.4 | 18 | 1.3 |
| Business and Repair Services | 15 | 4.8 | 3 | 1.4 | 9 | 2.9 | 39 | 7.7 | 66 | 4.9 |
| Personal Services | 4 | 1.3 | 3 | 1.4 | 7 | 2.3 | 6 | 1.2 | 20 | 1.5 |
| Entertainment and Recreation Services | 0 | 0.0 | 1 | 0.5 | 2 | 0.6 | 1 | 0.2 | 4 | 0.3 |
| Professional and Related Services | 5 | 1.6 | 10 | 4.8 | 11 | 3.6 | 32 | 6.3 | 58 | 4.3 |
| Public Administration | 5 | 1.6 | 2 | 1.0 | 10 | 3.2 | 10 | 2.0 | 27 | 2.0 |
| Unemployed | 42 | 13.3 | 23 | 11.0 | 22 | 7.1 | 48 | 9.5 | 135 | 10.1 |
| No Response | 25 | 7.9 | 10 | 4.8 | 20 | 6.5 | 43 | 8.5 | 98 | 7.3 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

services, 58, or 4.3 percent. There were less than 4 percent in the other categories.

A perusal of the continued tables for individual schools by county, Appendix C, showed generally consistent patterns of employment within counties, although there were wide disparities among schools in certain categories. For example, seniors at Whitewood in Buchanan County reported that 77.1 percent of fathers were miners, while only 16.8 percent of fathers at Graham in Tazewell County were reported as miners. Whitewood was an isolated coal mining community, while Graham represented the Bluefield area, which had a more diverse and pluralistic economy. The largest group of unemployed fathers was reported by Hurley seniors in Buchanan County, 23.7 percent; while the smallest group was reported by Castlewood seniors in Russell County, 4.9 percent.

## OCCUPATIONS OF MOTHERS BY FOURTEEN CLASSIFICATIONS

Table 13 shows that 824, or 61.5 percent of mothers, reported in this study were housewives. Except for 25, or 1.8 percent, reported as unemployed and the 68, or 5.1 percent, for which there was no response, 423, or 31.6 percent, were employed in all the other categories. The largest group, 83, or 6.2 percent, was reported in professional and related services, probably due primarily to public education. The next largest categories included manufacturing, 70, or 5.2 percent, and public administration, 67, or 5.0 percent. Wholesale and retail trade, and personal services each had 4.6 percent. The other categories were represented by very small percentages.

As was the case with fathers, mothers' occupations fit generally consistent patterns within counties but showed wide variations by

Table 13

Occupations of Seniors' Mothers by Fourteen Classifications by County

| Occupational Classification | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.4 | 2 | 0.1 |
| Mining | 1 | 0.3 | 4 | 1.9 | 1 | 0.3 | 2 | 0.4 | 8 | 0.6 |
| Construction | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 | 3 | 0.6 | 4 | 0.3 |
| Manufacturing | 11 | 3.5 | 6 | 2.9 | 35 | 11.3 | 18 | 3.6 | 70 | 5.2 |
| Transportation, Communication, Other Public Utilities | 1 | 0.3 | 3 | 1.4 | 7 | 2.3 | 9 | 1.8 | 20 | 1.5 |
| Wholesale and Retail Trade | 12 | 3.8 | 12 | 5.7 | 8 | 2.6 | 30 | 5.9 | 62 | 4.6 |
| Finance, Insurance, Real Estate | 2 | 0.6 | 2 | 1.0 | 3 | 1.0 | 6 | 1.2 | 13 | 1.0 |
| Business and Repair Services | 5 | 1.6 | 1 | 0.5 | 3 | 1.0 | 16 | 3.2 | 25 | 1.9 |
| Personal Services | 12 | 3.8 | 6 | 2.9 | 14 | 4.5 | 29 | 5.7 | 61 | 4.6 |
| Entertainment and Recreation Services | 1 | 0.3 | 2 | 1.0 | 2 | 0.6 | 3 | 0.6 | 8 | 0.6 |
| Professional and Related Services | 16 | 5.1 | 11 | 5.2 | 12 | 3.9 | 44 | 8.7 | 83 | 6.2 |
| Public Administration | 16 | 5.1 | 9 | 4.3 | 13 | 4.2 | 29 | 5.7 | 67 | 5.0 |
| Housewife | 210 | 66.7 | 138 | 65.7 | 191 | 61.8 | 285 | 56.3 | 824 | 61.5 |
| Unemployed | 6 | 1.9 | 7 | 3.3 | 3 | 1.0 | 9 | 1.8 | 25 | 1.8 |
| No Response | 22 | 7.0 | 8 | 3.8 | 17 | 5.5 | 21 | 4.2 | 68 | 5.1 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

schools. Variations probably were attributed to the relative availability of certain jobs. Some communities, for example, offered close proximity to various factories. Lebanon seniors, in Russell County, reported 16.7 percent of mothers in manufacturing jobs; while Whitewood seniors failed to report a single parent in that category. Few mothers in wholesale and retail trade were reported in outlying schools, while the largest numbers were reported in schools serving the county seat and in Graham.

## OCCUPATIONS OF FATHERS BY THREE LEVELS

Occupational levels were trichotomized for summary purposes as (1) owners, (2) managers, and (3) laborers. Table 14 shows that 700, or 52.2 percent of all fathers, were reported as laborers. The smallest groups, 157, or 49.8 percent, and 250, or 49.4 percent, were reported for Buchanan and Tazewell, respectively, while the largest group, 178, or 57.6 percent, was reported for Russell. Less than 20 percent of fathers in each county were owners and, except for Tazewell with 17.6 percent, less than 15 percent were managers. Fathers reported as unemployed and those not reported for any category were grouped in the category labelled "other." Of 1,340 seniors, 234, or 17.5 percent, placed their fathers in the "other" category. Buchanan fathers represented the largest group with 68, or 21.6 percent, and Russell fathers represented the smallest group with 42, or 13.6 percent.

## OCCUPATIONS OF MOTHERS BY THREE LEVELS

Mothers' occupational levels were grouped in the same manner as fathers. Table 15 shows that more mothers were employed in Russell and

Table 14

Occupational Levels of Fathers by County

| County | N | Other | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Buchanan | 315 | 68 | 21.6 | 49 | 15.6 | 41 | 13.0 | 157 | 49.8 |
| Dickenson | 210 | 33 | 15.6 | 41 | 19.5 | 21 | 10.0 | 115 | 54.8 |
| Russell | 309 | 42 | 13.6 | 54 | 17.5 | 35 | 11.3 | 178 | 57.6 |
| Tazewell | 506 | 91 | 18.0 | 76 | 15.0 | 89 | 17.6 | 250 | 49.4 |
| Total | 1,340 | 234 | 17.5 | 220 | 16.4 | 186 | 13.9 | 700 | 52.2 |

Table 15

Occupational Levels of Mothers by County

| County | N | Other | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Buchanan | 315 | 239 | 75.9 | 10 | 3.1 | 14 | 4.4 | 52 | 16.5 |
| Dickenson | 210 | 153 | 72.9 | 11 | 5.2 | 12 | 5.7 | 34 | 16.2 |
| Russell | 309 | 211 | 68.3 | 7 | 2.3 | 9 | 2.9 | 82 | 26.5 |
| Tazewell | 506 | 315 | 62.3 | 17 | 3.4 | 29 | 5.7 | 145 | 28.7 |
| Total | 1,340 | 918 | 68.5 | 45 | 3.4 | 64 | 4.8 | 313 | 23.4 |

Tazewell than in Buchanan and Dickenson. Approximately three-fourths of Buchanan and Dickenson mothers were reported in the "other" category as housewives, unemployed, or not reported. In Russell, 211, or 68.3 percent, and in Tazewell, 315, or 62.3 percent, were reported in the "other" category. The percentage of mothers reported in the owner and manager levels ranged from 5.7 percent downward to 2.3 percent. In the laborer category, Dickenson had the smallest group, 34, or 16.2 percent; while Tazewell had the largest group, 145, or 28.7 percent.

## OCCUPATIONS OF SENIORS' FATHERS GROUPED BY THREE LEVELS

The thirteen classifications of fathers' occupations were grouped by three levels. The first group, "High Level," labelled white collar, included the classifications of wholesale and retail trade; finance, insurance, real estate; business and repair services; entertainment and recreation services; professional and related services; and public administration. The second group, "Low Level," labelled blue collar, included agriculture, forestry, and fisheries; mining; construction; manufacturing; transportation, communication, and other public utilities; and personal services. One other level, unemployed, was added for fathers. The data are displayed in Table 16.

There were 233, or 19.7 percent, seniors' fathers in the "high level"; 831, or 70.2 percent, in the "low level"; and 120, or 10.1 percent, in the category "unemployed." Among the counties, Tazewell had more fathers, 122, or 27.4 percent, in high level occupations; while Dickenson had the smallest number, 26, or 13.8 percent. Russell had more fathers, 212, or 76.5 percent, in low level occupations; while Tazewell had the smallest number, 281, or 63 percent. The largest

Table 16

Frequency of Three Levels of Occupation
for Seniors' Fathers and Mothers
by County

| Occupational Category | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Fathers: | | | | | | | | | | |
| High Level (White Collar) | 39 | 14.3 | 26 | 13.8 | 46 | 16.6 | 122 | 27.4 | 233 | 19.7 |
| Low Level (Blue Collar) | 197 | 72.2 | 141 | 75.0 | 212 | 76.5 | 281 | 63.0 | 831 | 70.2 |
| Unemployed | 37 | 13.6 | 21 | 11.2 | 19 | 6.9 | 43 | 9.6 | 120 | 10.1 |
| Total | 273 | 100.0 | 188 | 100.0 | 277 | 100.0 | 446 | 100.0 | 1,184 | 100.0 |
| Mothers: | | | | | | | | | | |
| High Level (White Collar) | 50 | 18.3 | 35 | 18.6 | 38 | 13.7 | 122 | 27.4 | 245 | 20.7 |
| Low Level (Blue Collar) | 23 | 8.4 | 20 | 10.6 | 56 | 20.2 | 57 | 12.8 | 156 | 13.2 |
| Housewife | 200 | 73.3 | 133 | 70.7 | 183 | 66.1 | 267 | 59.9 | 783 | 66.1 |
| Total | 273 | 100.0 | 188 | 100.0 | 277 | 100.0 | 446 | 100.0 | 1,184 | 100.0 |

group of unemployed fathers was reported by Buchanan seniors, 37, or 13.6 percent; and the smallest group, 19, or 6.9 percent, was reported by Russell seniors.

## OCCUPATIONS OF SENIORS' MOTHERS GROUPED BY THREE LEVELS

The levels used to group fathers were used to group mothers; that is, a high level and a low level, corresponding to white collar and blue collar. Instead of the category "unemployed" (for which there were only 25 mothers in the entire population of 1,340) the category "housewife" was used.

Table 16 shows that for the entire population there were 245, or 20.7 percent, mothers reported in the "high level"; 156, or 13.2 percent, reported in the "low level"; and 783, or 66.1 percent, reported in the category "housewife." Among the counties, Tazewell had more mothers, 122, or 27.4 percent, in high level occupations; while Russell had the smallest number, 38, or 13.7 percent. Russell had more mothers, 56, or 20.2 percent, in low level occupations; while Buchanan had the smallest number, 23, or 8.4 percent. Buchanan had more mothers, 200, or 73.3 percent, reported as housewives; while Tazewell had 267, or 59.9 percent.

## INTENDED OCCUPATIONS OF SENIORS

Table 17 presents the number and percent of seniors by county who reported the occupational categories they intended to select when they entered the job market. Although the major industry in the area was coal, the largest group, 286, or 21.3 percent of 1,340 seniors, planned for professional and related services jobs. Mining ranked

Table 17

Intended Occupations of All Seniors by County

| Occupational Category | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 6 | 1.9 | 7 | 3.3 | 11 | 3.6 | 12 | 2.4 | 36 | 2.7 |
| Mining | 65 | 20.6 | 55 | 26.2 | 61 | 19.7 | 77 | 15.2 | 258 | 19.3 |
| Construction | 16 | 5.0 | 19 | 9.1 | 23 | 7.4 | 26 | 5.1 | 84 | 6.3 |
| Manufacturing | 9 | 2.9 | 6 | 2.9 | 12 | 3.9 | 14 | 2.8 | 41 | 3.1 |
| Transportation, Communication, Other Public Utilities | 9 | 2.9 | 9 | 4.3 | 18 | 5.8 | 16 | 3.2 | 52 | 3.9 |
| Wholesale and Retail Trade | 14 | 4.4 | 11 | 5.2 | 6 | 1.9 | 37 | 7.3 | 68 | 5.1 |
| Finance, Insurance, Real Estate | 11 | 3.5 | 2 | 0.9 | 7 | 2.3 | 17 | 3.4 | 37 | 2.8 |
| Business and Repair Services | 32 | 10.2 | 15 | 7.1 | 37 | 12.0 | 60 | 11.9 | 144 | 10.7 |
| Personal Services | 37 | 11.8 | 18 | 8.6 | 31 | 10.0 | 32 | 6.3 | 118 | 8.8 |
| Entertainment and Recreation Services | 7 | 2.2 | 8 | 3.8 | 9 | 2.9 | 11 | 2.2 | 35 | 2.6 |
| Professional and Related Services | 49 | 15.6 | 24 | 11.4 | 62 | 20.1 | 151 | 29.9 | 286 | 21.3 |
| Public Administration | 25 | 7.9 | 23 | 11.0 | 20 | 6.5 | 27 | 5.3 | 95 | 7.1 |
| No Response | 35 | 11.1 | 13 | 6.2 | 12 | 3.9 | 26 | 5.1 | 86 | 6.4 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

second, with 258, or 19.3 percent, seniors; followed by business and repair services, 144, or 10.7 percent; personal services, 118, or 8.8 percent; public administration, 95, or 7.1 percent; construction, 84, or 6.3 percent; and wholesale and retail trade, 68, or 5.1 percent. Each of the other categories had less than 5 percent, while 6.4 percent did not respond.

The largest group selecting mining was Dickenson seniors, 55, or 26.2 percent; while the smallest group planning on mining for their future occupation was Tazewell seniors, 77, or 15.2 percent. In Tazewell, professional and related services were popular with 151, or 29.9 percent of seniors, selecting that category which accounted for a large portion of the 286, or 21.3 percent, average for the area. In Buchanan and Dickenson, the primary selections were mining. The least popular categories were finance, insurance, real estate, and entertainment, and recreation services with less than 3 percent of seniors selecting each.

## LEVEL OF EDUCATION SENIORS EXPECT TO ACHIEVE

Seniors were asked to check the level of education they expected to achieve. The results were tabulated and presented in Table 18 according to a six-level scale. This table shows that 585, or 43.7 percent of all seniors in the study, intended to stop their education with the high school diploma. More Buchanan seniors, 159, or 50.5 percent, and Dickenson seniors, 108, or 51.4 percent, intended to stop with the high school diploma than did Russell seniors, 134, or 43.4 percent, or Tazewell seniors, 184, or 36.4 percent.

Only 285, or 21.3 percent of all seniors, intended to receive a

Table 18

Level of Education Seniors Expect to Achieve by County

| Level of Education | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Graduate School Degree | 28 | 8.9 | 14 | 6.7 | 26 | 8.4 | 41 | 8.1 | 109 | 8.1 |
| Attend Graduate School | 4 | 1.3 | 3 | 1.4 | 5 | 1.6 | 4 | 0.7 | 16 | 1.2 |
| Receive College Degree | 44 | 14.0 | 39 | 18.6 | 70 | 22.7 | 132 | 26.1 | 285 | 21.3 |
| Attend College | 33 | 10.5 | 17 | 8.1 | 40 | 12.9 | 79 | 15.6 | 169 | 12.6 |
| Attend Technical, Special School | 29 | 9.2 | 22 | 10.5 | 26 | 8.4 | 54 | 10.7 | 131 | 9.8 |
| Receive High School Diploma | 159 | 50.5 | 108 | 51.4 | 134 | 43.4 | 184 | 36.4 | 585 | 43.7 |
| No Response | 18 | 5.7 | 7 | 3.3 | 8 | 2.6 | 12 | 2.4 | 45 | 3.4 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

college degree, with the largest group in Tazewell, 132, or 26.1 percent, and the smallest group in Buchanan, 44, or 14.0 percent. A surprising 109, or 8.1 percent, of all seniors expected to achieve a graduate school degree, with the numbers about equal among the four counties.

Among the schools, the lowest educational aspirations were reported by seniors at Hurley, 84.2 percent expecting to achieve only a high school diploma; while the highest aspirations were reported by Grundy, Whitewood, Honaker, and Graham, with between 10.5 and 11.5 percent expecting to receive a graduate school degree.

## LEVELS OF EDUCATION SENIORS REPORT THAT SHOULD BE ACHIEVED

Seniors were asked to report the level of education they thought seniors should achieve for tomorrow's world, using the same scale that recorded the level of education that seniors expected to achieve. Table 19 shows the numbers and percent of responses for each of the categories by county. The data show that 452 seniors, or 33.7 percent, believed a high school senior should receive a college degree. Among the counties, 130, or 42.1 percent, of Russell seniors believed a college degree was essential; while only 60, or 28.6 percent, of Dickenson seniors believed so. A comparison of this category with the same category in Table 8 revealed that seniors do not expect to achieve as much education as they perceive to be necessary for tomorrow's world. Only 285, or 21.3 percent, planned to receive a college degree; while 452, or 33.7 percent, believed that seniors should receive a college degree.

Another way to view the relationship between what seniors expect to achieve and what they believe should be achieved is to compare the category "receive a high school diploma" in Table 18, page 85, with the same

category in Table 19. Only 207 seniors, or 15.4 percent, believed that a high school diploma would be adequate for "tomorrow"; while 585, or 43.7 percent, intended to achieve only a high school diploma. In every case, more seniors selected categories above the high school diploma in Table 19 than selected the same categories in Table 18.

## POST-HIGH SCHOOL PLANS OF SENIORS

Seniors were asked to indicate what they planned to do after graduation by selecting one category among the nine listed. Table 20 presents the number and percentage of selections according to categories by county by total population. More seniors, 528, or 39.4 percent, selected the category "get a job" than any other category. The second most popular category was "attend a four-year college," selected by 235, or 17.5 percent, of all seniors. Another 210, or 15.7 percent, selected the category "attend a two-year college." Only 42, or 3.1 percent, reported they planned to enter military service; 19, or 1.4 percent, planned to travel; and 66, or 4.9 percent, planned to get married. Ninety-two, or 6.9 percent, reported they had no definite plans; while 52, or 3.9 percent, reported they did not know what they were going to do; 50, or 3.7 percent, did not respond to this question. As might be expected from a review of the data on educational levels of fathers and mothers, more Tazewell seniors planned to attend a four-year college than did seniors in the other three counties. In three counties more seniors planned to attend four-year colleges than planned to attend community colleges. Only in Russell County did more seniors plan to attend community colleges, 64, or 20.7 percent, than planned to attend four-year colleges, 41, or 13.3 percent.

More Buchanan seniors reported they had no definite plans, 32,

Table 19

Reported Levels of Education Seniors Should Achieve by County

| Level of Education | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Graduate School Degree | 34 | 10.8 | 18 | 8.6 | 23 | 7.4 | 51 | 10.1 | 126 | 9.4 |
| Attend Graduate School | 7 | 2.2 | 2 | 1.0 | 8 | 2.6 | 10 | 1.9 | 27 | 2.0 |
| Receive College Degree | 107 | 34.0 | 60 | 28.6 | 130 | 42.1 | 155 | 30.6 | 452 | 33.7 |
| Attend College | 51 | 16.2 | 39 | 18.6 | 46 | 14.9 | 106 | 21.0 | 242 | 18.1 |
| Attend Technical, Special School | 34 | 10.8 | 43 | 20.5 | 41 | 13.3 | 77 | 15.2 | 195 | 14.6 |
| Receive High School Diploma | 57 | 18.1 | 37 | 17.6 | 42 | 13.6 | 71 | 14.0 | 207 | 15.4 |
| No Response | 25 | 7.9 | 11 | 5.2 | 19 | 6.2 | 36 | 7.1 | 91 | 6.8 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

Table 20

Seniors' Post-High School Plans by County

| Plans | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Attend a Two-Year College | 36 | 11.4 | 19 | 9.1 | 64 | 20.7 | 91 | 18.0 | 210 | 15.7 |
| Attend a Four-Year College | 46 | 14.6 | 31 | 14.8 | 41 | 13.3 | 117 | 23.1 | 235 | 17.5 |
| Attend Other Type of Post-Secondary School | 12 | 3.8 | 9 | 4.3 | 5 | 1.6 | 20 | 4.0 | 46 | 3.4 |
| Enter Military Service | 4 | 1.3 | 6 | 2.9 | 7 | 2.3 | 25 | 4.9 | 42 | 3.1 |
| Get a Job | 128 | 40.6 | 91 | 43.3 | 136 | 44.0 | 173 | 34.2 | 528 | 39.4 |
| Travel | 1 | 0.3 | 6 | 2.9 | 3 | 1.0 | 9 | 1.8 | 19 | 1.4 |
| Get Married (No Outside Job) | 25 | 7.9 | 16 | 7.6 | 13 | 4.2 | 12 | 2.4 | 66 | 4.9 |
| No Definite Plans | 32 | 10.2 | 18 | 8.6 | 16 | 5.2 | 26 | 5.1 | 92 | 6.9 |
| Do Not Know | 13 | 4.1 | 9 | 4.3 | 14 | 4.5 | 16 | 3.2 | 52 | 3.9 |
| No Response | 18 | 5.7 | 5 | 2.4 | 10 | 3.2 | 17 | 3.4 | 50 | 3.7 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

or 10.2 percent, than did seniors in other counties. Buchanan seniors also exceeded the rate of no responses by seniors in other counties.

## WHEN SENIORS DECIDED POST-HIGH SCHOOL PLANS

Seniors indicated when they decided what they would do after graduation by responding to a four-factor scale. Table 21 shows that 372 seniors, or 27.8 percent, reported they had not yet decided what they would do. The largest group, 559, or 41.7 percent, reported they decided during their senior year what they would do after graduation. Another 176, or 13.1 percent, reported they decided in the eleventh grade, and 219, or 16.3 percent, reported they decided before the eleventh grade.

More Buchanan seniors, 96, or 30.5 percent, and Dickenson seniors, 73, or 34.8 percent, had not yet decided than either Russell seniors, 83, or 26.9 percent, or Tazewell seniors, 120, or 23.7 percent. More Tazewell seniors decided before the eleventh grade, 87, or 17.2 percent, than seniors in the other three counties. There was a small number of seniors who did not respond to this question, 1.6 percent in Buchanan, .5 percent in Dickenson, 1.0 percent in Russell, and 1.0 percent in Tazewell, for a total of 14, or 1.0 percent, for all counties.

Among the schools, seniors at Hurley in Buchanan County seemed to be most indecisive with 18, or 47.4 percent, reporting they had not yet decided. Tazewell High in Tazewell County and Council in Buchanan County had the smallest numbers of undecided seniors, 30, or 21 percent, and 9, or 21.4 percent, respectively.

## PEOPLE WHO INFLUENCED SENIORS' EDUCATIONAL ASPIRATIONS

Seniors indicated who had the <u>most</u> influence on their educational aspirations by selecting among ten categories of people. The results are

Table 21

When Seniors Decided Post-High School Plans by County

| Time | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Have Not Yet Decided | 96 | 30.5 | 73 | 34.8 | 83 | 26.9 | 120 | 23.7 | 372 | 27.8 |
| Decided This School Year (Twelfth Grade) | 113 | 35.9 | 80 | 38.1 | 131 | 42.4 | 235 | 46.4 | 559 | 41.7 |
| Decided in the Eleventh Grade | 50 | 15.9 | 25 | 11.9 | 42 | 13.6 | 59 | 11.7 | 176 | 13.1 |
| Decided Before the Eleventh Grade | 51 | 16.2 | 31 | 14.8 | 50 | 16.2 | 87 | 17.2 | 219 | 16.3 |
| No Response | 5 | 1.6 | 1 | 0.5 | 3 | 1.0 | 5 | 1.0 | 14 | 1.0 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

portrayed in Table 22. The persons selected most often were the mother, chosen by 371, or 27.7 percent of 1,340 seniors, followed by the father, who was selected by 315, or 23.5 percent. The next largest category was "other," which 277, or 20.6 percent, selected. In descending order, 111, or 8.3 percent, selected friends; 71, or 5.3 percent, selected the teacher; 47, or 3.5 percent, selected relative; 37, or 2.8 percent, selected brother; 37, or 2.8 percent, selected sister; 28, or 2.1 percent, selected guidance counselor; and 6, or .4 percent, selected the principal. There were 40, or 3.0 percent, who did not respond to the question.

If all family members, including father, mother, brother, sister, and relative, were placed in one group, 807 seniors, or 60.3 percent, would have chosen that category. If school personnel, including the principal, teacher, and guidance counselor, were placed in one group, 105, or 7.8 percent, would have chosen that category. Among the school group, the teacher is most influential, followed by the guidance counselor and the principal.

Among the counties, the range for seniors selecting the father was extremely small, from 22.9 percent to 23.9 percent. The range was larger for the category "mother," with 97, or 31.4 percent of Russell seniors, at the top and 54, or 25.7 percent of Dickenson seniors, at the bottom. Dickenson seniors selected brothers and sisters more often than seniors in the other counties. Among the schools, fathers were selected most often by seniors at Irvinton in Dickenson County, 15, or 35.7 percent, and least often by seniors at Council in Buchanan County, 7, or 16.7 percent. Mothers were selected most often by seniors at Hurley in Buchanan County, 14, or 36.8 percent, and least often by seniors at Graham in Tazewell County, 26, or 23.0 percent.

Table 22

Significant People Who Influenced Seniors' Educational Aspirations

| Person | Buchanan | | Dickenson | | Russell | | Tazewell | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Father | 73 | 23.2 | 48 | 22.9 | 74 | 23.9 | 120 | 23.7 | 315 | 23.5 |
| Mother | 86 | 27.3 | 54 | 25.7 | 97 | 31.4 | 134 | 26.5 | 371 | 27.7 |
| Brother | 9 | 2.9 | 9 | 4.3 | 8 | 2.6 | 11 | 2.2 | 37 | 2.8 |
| Sister | 9 | 2.9 | 10 | 4.8 | 7 | 2.3 | 11 | 2.2 | 37 | 2.8 |
| Relative | 9 | 2.9 | 7 | 3.3 | 12 | 3.9 | 19 | 3.8 | 47 | 3.5 |
| Principal | 1 | 0.3 | 5 | 2.4 | 0 | 0.0 | 0 | 0.0 | 6 | 0.4 |
| Teacher | 20 | 6.3 | 6 | 2.9 | 18 | 5.8 | 27 | 5.3 | 71 | 5.3 |
| Guidance Counselor | 6 | 1.9 | 6 | 2.9 | 4 | 1.3 | 12 | 2.4 | 28 | 2.1 |
| Friends | 31 | 9.8 | 15 | 7.1 | 25 | 8.1 | 40 | 7.9 | 111 | 8.3 |
| Other | 57 | 18.1 | 43 | 20.5 | 58 | 18.7 | 119 | 23.5 | 277 | 20.6 |
| No Response | 0 | 0.0 | 7 | 3.3 | 6 | 1.9 | 13 | 2.6 | 40 | 3.0 |
| Total | 315 | 100.0 | 210 | 100.0 | 309 | 100.0 | 506 | 100.0 | 1,340 | 100.0 |

The guidance counselor was not selected at all at five schools including Council, Hurley, Whitewood, Castlewood, and Pocahontas. The principal was selected by seniors at only two schools, Garden and Haysi. Teachers were selected most often by seniors at Graham, 11, or 9.7 percent, and least often by seniors at Hurley.

## HYPOTHESES

Parametric statistics were used to test the hypotheses of this study. The .05 level of significance was selected for all hypotheses when the study was designed prior to the collection of data. This level of significance is acceptable to behavioral scientists. The tests of significance were analysis of variance and t-tests for hypotheses.

### Hypotheses One and Two

Hypothesis one: there is no significant difference between senior male attitudes toward community colleges and senior male attitudes toward four-year colleges.

Hypothesis two: there is no significant difference between senior female attitudes toward community colleges and senior female attitudes toward four-year colleges.

These two hypotheses could not be tested as they were written. When the attitude statements were written, it was decided to make the comparison between community colleges and four-year colleges one of degree by using phrases such as "more than" and "greater than" written into each item. This technique did not alter the basic concept of the research or impede the feasibility of testing the other hypotheses.

Hypotheses Three, Four, Five, and Six

Hypothesis three: there is no significant difference between attitudes of senior males on measures of fathers' occupation.

Hypothesis four: there is no significant difference between attitudes of senior males on measures of mothers' occupation.

Hypothesis five: there is no significant difference between attitudes of senior females on measures of fathers' occupation.

Hypothesis six: there is no significant difference between attitudes of senior females on measures of mothers' occupation.

These hypotheses were tested by the statistical technique known as a multiple classification of analysis of variance. The test was applied to each of the counties to determine if there were significant differences within a county, and it was applied to the entire population to determine if there were significant differences.

Buchanan County. Table 23 shows the number of subjects, mean scores, and standard deviations for senior males and females according to three levels of occupations of fathers and mothers for Buchanan County. There were 125 males and 143 females. The levels of occupation were (1) high level (white collar); (2) low level (blue collar); (3) unemployed, for fathers; and (4) housewife, for mothers.

Table 24 shows the analysis of variance values for Buchanan County seniors for sex, levels of occupation for fathers and mothers, and interaction between sex and occupation. The F values were main effects, 1.495; sex, .053; fathers' occupation, 2.184; and interaction, 1.637. The significance level for each of these values was greater than .05. Therefore hypotheses three and five were accepted as tenable for Buchanan County.

The F values for mothers were main effects, .843; sex, .057;

Table 23

Cell Means of Buchanan County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| High Level (White Collar) | 27 | 53.926 | 11.773 | 11 | 48.273 | 12.634 |
| Low Level (Blue Collar) | 81 | 50.222 | 11.448 | 113 | 51.496 | 12.530 |
| Unemployed | 17 | 49.059 | 10.790 | 19 | 44.789 | 13.831 |
| Mothers' Occupation: | | | | | | |
| High Level (White Collar) | 26 | 53.577 | 11.531 | 22 | 52.500 | 12.731 |
| Low Level (Blue Collar) | 9 | 52.778 | 9.563 | 14 | 49.214 | 13.869 |
| Housewife | 90 | 49.889 | 11.576 | 107 | 50.065 | 12.803 |
| Total by Sex | 125 | 50.864 | 11.463 | 143 | 50.357 | 12.839 |
| Sex Not Reported | 5 | 54.200 | 11.100 | 5 | 54.200 | 11.100 |
| All Buchanan County Seniors | 273 | 50.6593 | 12.1682 | 273 | 50.6593 | 12.1682 |

Table 24

Analysis of Variance F Values for Buchanan County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 660.307 | 3 | 220.102 | 1.495 | 0.215 |
| Sex | 7.851 | 1 | 7.851 | 0.053 | 0.999 |
| Fathers' Occupation (White Collar, Blue Collar, Unemployed) | 643.142 | 2 | 321.571 | 2.184 | 0.112 |
| Interaction | 481.942 | 2 | 240.971 | 1.637 | 0.195 |
| Within | 38,573.961 | 262 | 147.229 | | |
| Total | 39,716.211 | 267 | 148.750 | | |
| Mothers: | | | | | |
| Main Effects | 379.047 | 3 | 126.349 | 0.843 | 0.999 |
| Sex | 8.491 | 1 | 8.491 | 0.057 | 0.999 |
| Mothers' Occupation (White Collar, Blue Collar, Housewife) | 361.882 | 2 | 180.941 | 1.207 | 0.301 |
| Interaction | 76.411 | 2 | 38.205 | 0.255 | 0.999 |
| Within | 39,260.750 | 262 | 149.850 | | |
| Total | 39,716.211 | 267 | 148.750 | | |

mothers' occupation, 1.207; and interaction, 2.555. The significance level of each of the F values was greater than .05. Therefore hypotheses four and six were accepted as tenable.

An alternate classification scheme was used to group fathers' occupations according to whether they were (1) owners, (2) managers, or (3) laborers. Table 25 presents the number of subjects, mean scores, and standard deviations for this scheme.

Table 26 shows the analysis of variance F values for main effects, sex, levels of occupation for fathers and mothers, and interaction between sex and occupation. The F values were main effects, 1.823; sex, .093; fathers' occupation, 2.731; and interaction, .289. The significance level for each of these values was greater than .05. Therefore hypotheses three and five were accepted as tenable for Buchanan County seniors.

The F values for mothers were main effects, .444; sex, .361; mothers' occupation, .393; interaction, 1.232. The significance level of each of the F values was greater than .05. Therefore hypotheses four and six were accepted as tenable.

Dickenson County. Table 27 shows the number of subjects, mean scores, and standard deviations for males and females according to three levels of occupations of fathers and mothers for Dickenson County. There were 88 males and 95 females. The levels of occupations were (1) high level (white collar); (2) low level (blue collar); (3) unemployed, for fathers; and (4) housewife, for mothers.

Table 28 shows the analysis of variance F values for Dickenson County seniors for sex, levels of occupation for fathers and mothers, and interaction between sex and occupation. The F values were main

Table 25

Cell Means of Buchanan County Seniors by Three Levels of Fathers' and Mothers' Occupation by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| No Response | 17 | 49.059 | 10.790 | 20 | 44.700 | 13.468 |
| Owners | 26 | 54.462 | 11.724 | 22 | 53.591 | 11.219 |
| Managers | 19 | 53.632 | 10.945 | 18 | 52.278 | 12.690 |
| Laborers | 63 | 49.032 | 11.422 | 83 | 50.446 | 12.899 |
| Mothers' Occupation: | | | | | | |
| No Response | 91 | 49.923 | 11.516 | 107 | 50.065 | 12.803 |
| Owners | 6 | 55.167 | 4.916 | 3 | 57.667 | 14.468 |
| Managers | 5 | 47.200 | 11.367 | 9 | 53.778 | 14.788 |
| Laborers | 23 | 54.261 | 12.050 | 24 | 49.458 | 12.459 |
| Total by Sex | 125 | 50.864 | 11.643 | 143 | 50.357 | 12.839 |
| Sex Not Reported | 5 | 54.200 | 11.100 | 5 | 54.200 | 11.100 |
| All Buchanan County Seniors | 273 | 50.6593 | 12.1682 | 273 | 50.6593 | 12.1682 |

Table 26

Analysis of Variance F Values for Buchanan County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 794.858 | 3 | 264.953 | 1.823 | 0.142 |
| Sex | 13.523 | 1 | 13.523 | 0.093 | 0.999 |
| Fathers' Occupation (Owner, Manager, Laborer) | 793.912 | 2 | 396.956 | 2.731 | 0.066 |
| Interaction | 84.061 | 2 | 42.030 | 0.289 | 0.999 |
| Within | 32,703.867 | 225 | 145.351 | | |
| Total | 33,582.789 | 230 | 146.012 | | |
| Mothers: | | | | | |
| Main Effects | 199.133 | 3 | 66.378 | 0.444 | 0.999 |
| Sex | 53.998 | 1 | 53.998 | 0.361 | 0.999 |
| Mothers' Occupation (Owner, Manager, Laborer) | 117.542 | 2 | 58.771 | 0.393 | 0.999 |
| Interaction | 368.459 | 2 | 184.229 | 1.232 | 0.298 |
| Within | 9,570.164 | 64 | 149.534 | | |
| Total | 10,137.758 | 69 | 146.924 | | |

Table 27

Cell Means of Dickenson County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| High Level (White Collar) | 9 | 50.667 | 13.838 | 16 | 43.813 | 7.035 |
| Low Level (Blue Collar) | 69 | 48.928 | 11.284 | 69 | 45.609 | 11.058 |
| Unemployed | 10 | 49.800 | 10.675 | 10 | 43.200 | 9.378 |
| Mothers' Occupation: | | | | | | |
| High Level (White Collar) | 12 | 51.167 | 10.321 | 23 | 45.087 | 11.066 |
| Low Level (Blue Collar) | 8 | 55.000 | 15.316 | 12 | 47.583 | 7.669 |
| Housewife | 68 | 48.176 | 10.957 | 60 | 44.533 | 10.492 |
| Total by Sex | 88 | 49.205 | 11.969 | 95 | 45.053 | 10.277 |
| Sex Not Reported | 5 | 40.800 | 5.933 | 5 | 40.800 | 5.933 |
| All Dickenson County Seniors | 188 | 46.8830 | 10.9182 | 188 | 46.8830 | 10.9182 |

Table 28

Analysis of Variance F Values for Dickenson County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 799.896 | 3 | 266.632 | 2.240 | 0.084 |
| Sex | 772.455 | 1 | 772.455 | 6.941 | 0.011 |
| Fathers' Occupation (White Collar, Blue Collar, Unemployed) | 12.396 | 2 | 6.198 | 0.052 | 0.999 |
| Interaction | 95.942 | 2 | 47.971 | 0.403 | 0.999 |
| Within | 21,064.453 | 177 | 119.008 | | |
| Total | 21,960.293 | 182 | 120.661 | | |
| Mothers: | | | | | |
| Main Effects | 1183.426 | 3 | 394.475 | 3.374 | 0.020 |
| Sex | 894.666 | 1 | 894.666 | 7.653 | 0.006 |
| Mothers' Occupation (White Collar, Blue Collar, Housewife) | 395.926 | 2 | 197.963 | 1.693 | 0.185 |
| Interaction | 83.892 | 2 | 41.946 | 0.359 | 0.999 |
| Within | 20,692.973 | 177 | 116.909 | | |
| Total | 21,960.293 | 182 | 120.661 | | |

2.240; sex, 6.941; fathers' occupation, .052; and interaction, .403. The F value for sex was significant at the .01 level. An inspection of the means in Table 29 revealed that males had a higher mean score, 49.205, than did females, 45.053.

The F values for fathers' occupation and for interaction were significant at the .99 level, which was far beyond the .05 level. Therefore, it was concluded that there was no significant difference according to levels of occupations or according to the interaction of sex and levels of occupations. The only significance was for sex. Therefore hypotheses three and five were accepted as tenable for Dickenson County seniors.

The F values for mothers were main effects, 3.374; sex, 7.653; mothers' occupations, 1.693; and interaction, .359. The significance levels were .02 and .006 for main effects and for sex, respectively. The level of significance for mothers' occupation was .185 and for interaction, .999. The significance levels for these F values were .185 and .999, respectively. Therefore hypotheses four and six were accepted as tenable.

The alternative classification scheme used to group fathers' occupations according to the categories (1) owners, (2) managers, and (3) laborers is presented in Table 29 which shows the number of subjects, mean scores, and standard deviations.

Table 30 shows the analysis of variance F values which were main effects, 1.856; sex, 5.096; fathers' occupation, .288; and interaction, .833. Each F value was beyond the .05 level except for sex which was significant at .024. Therefore hypotheses three and five were accepted as tenable.

Table 29

Cell Means of Dickenson County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| No Response | 10 | 49.800 | 10.675 | 10 | 43.200 | 9.378 |
| Owners | 18 | 48.611 | 9.179 | 20 | 46.850 | 6.699 |
| Managers | 11 | 45.545 | 12.778 | 10 | 45.800 | 9.307 |
| Laborers | 49 | 50.122 | 12.038 | 55 | 44.600 | 11.698 |
| Mothers' Occupation: | | | | | | |
| No Response | 68 | 48.176 | 10.957 | 60 | 44.533 | 10.492 |
| Owners | 6 | 45.667 | 12.565 | 5 | 45.200 | 9.731 |
| Managers | 4 | 55.750 | 8.500 | 8 | 42.875 | 6.512 |
| Laborers | 10 | 55.700 | 12.711 | 22 | 47.227 | 11.127 |
| Total by Sex | 88 | 49.205 | 11.369 | 95 | 45.053 | 10.277 |
| Sex Not Reported | 5 | 40.800 | 5.933 | 5 | 40.800 | 5.933 |
| All Dickenson County Seniors | 188 | 46.8830 | 10.9182 | 188 | 48.8830 | 10.9182 |

Table 30

Analysis of Variance F Values for Dickenson County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 675.198 | 3 | 225.066 | 1.856 | 0.138 |
| Sex | 615.052 | 1 | 618.052 | 5.096 | 0.024 |
| Fathers' Occupation (Owner, Manager, Laborer) | 69.908 | 2 | 34.954 | .288 | 0.999 |
| Interaction | 201.970 | 2 | 100.985 | .833 | 0.999 |
| Within | 19,041.406 | 157 | 121.283 | | |
| Total | 19,918.578 | 162 | 122.954 | | |
| Mothers: | | | | | |
| Main Effects | 901.298 | 3 | 300.433 | 2.567 | 0.064 |
| Sex | 717.990 | 1 | 717.990 | 6.134 | 0.016 |
| Mothers' Occupation (Owner, Manager, Laborer) | 320.184 | 2 | 160.092 | 1.368 | .264 |
| Interaction | 218.183 | 2 | 109.092 | .932 | .999 |
| Within | 5,735.672 | 49 | 117.055 | | |
| Total | 6,855.156 | 54 | 126.947 | | |

The analysis of variance F values for mothers were as follows: main effects, 2.567; sex, 6.134; mothers' occupation, 1.368; and interaction, .932. Each of these values was higher than .05 except for sex which was significant at .016. Therefore hypotheses four and six were accepted as tenable.

Russell County. Table 31 shows the number of subjects, mean scores, and standard deviations for males and females according to three levels of occupations of fathers and mothers for Russell County. There were 132 males and 142 females. The levels of occupations were (1) high level (white collar); (2) low level (blue collar); (3) unemployed, for fathers; and (4) housewife, for mothers.

Table 32 shows the analysis of variance F values which were main effects, 3.639; sex, 10.275; fathers' occupation, .412; and interaction, .579. Significance levels were main effects, .013; sex, .002; fathers' occupation, .999; and interaction, .999. It was evident that there was no significance for levels of fathers' occupation or for two-way interaction between sex and fathers' occupation. Therefore hypotheses three and five were accepted as tenable for Russell County seniors.

The analysis of variance F values for mothers were main effects, 3.414; sex, 9.755; mothers' occupation, .055; and interaction, 1.438. The significance levels were .018 for main effects, .002 for sex, .999 for mothers' occupation, and .238 for interaction. There was a significant difference in attitude scores according to sex, but not for levels of occupation of mothers or for interaction of sex and mothers' occupations. Therefore hypotheses four and six were accepted as tenable for Russell County Seniors.

Table 31

Cell Means of Russell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| High Level (White Collar) | 21 | 50.905 | 14.785 | 24 | 44.875 | 11.176 |
| Low Level (Blue Collar) | 103 | 49.942 | 14.476 | 107 | 45.626 | 11.308 |
| Unemployed | 8 | 56.500 | 11.588 | 11 | 45.636 | 14.692 |
| Mothers' Occupation: | | | | | | |
| High Level (White Collar) | 13 | 54.769 | 15.023 | 25 | 42.880 | 9.981 |
| Low Level (Blue Collar) | 31 | 50.871 | 10.629 | 24 | 46.167 | 11.173 |
| Housewife | 88 | 49.727 | 15.394 | 93 | 46.032 | 11.945 |
| Total by Sex | 132 | 50.492 | 14.359 | 142 | 45.500 | 11.485 |
| Sex Not Reported | 3 | 47.667 | 14.468 | 3 | 47.667 | 14.468 |
| All Russell County Seniors | 277 | 47.9025 | 13.1505 | 277 | 47.9025 | 13.1505 |

Table 32

Analysis of Variance F Values for Russell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 1844.242 | 3 | 614.747 | 3.639 | 0.013 |
| Sex | 1735.625 | 1 | 1735.625 | 10.275 | 0.002 |
| Fathers' Occupation (White Collar, Blue Collar, Unemployed) | 139.223 | 2 | 69.612 | 0.412 | 0.999 |
| Interaction | 195.592 | 2 | 97.796 | 0.579 | 0.999 |
| Within | 45,271.227 | 268 | 168.922 | | |
| Total | 47,311.063 | 273 | 173.301 | | |
| Mothers: | | | | | |
| Main Effects | 1723.523 | 3 | 574.511 | 3.414 | 0.018 |
| Sex | 1641.766 | 1 | 1641.766 | 9.755 | 0.002 |
| Mothers' Occupation (White Collar, Blue Collar, Housewife) | 18.513 | 2 | 9.257 | 0.055 | 0.999 |
| Interaction | 483.881 | 2 | 241.940 | 1.438 | 0.238 |
| Within | 45,103.648 | 268 | 168.297 | | |
| Total | 47,311.063 | 273 | 173.301 | | |

The alternative classification scheme used to group fathers' occupations according to the categories (1) owners, (2) managers, and (3) laborers is presented in Table 33 which shows the number of subjects, mean scores, and standard deviations.

Table 34 shows the analysis of variance F values which were as follows: main effects, 3.959; sex, 8.189; fathers' occupation, 1.836, and interaction, 1.211. The significance levels were as follows: main effects, .099; sex, .005; fathers' occupation, .159; and interaction, .300. Since there was significance at the .05 level only for sex, hypotheses three and five were accepted as tenable for Russell County seniors.

The analysis of variance F values for mothers were main effects, 3.837; sex, 10.399; mothers' occupation, .646; and interaction, 1.032. Significance levels were main effects, .012; sex, .002; mothers' occupation, .999; interaction, .362. Since there was significance at the .05 level for sex only, hypotheses four and six were accepted as tenable for Russell County seniors.

Tazewell County. Table 35 shows the number of subjects, mean scores, and standard deviations for males and females according to three levels of occupations of fathers and mothers in Tazewell County. There were 228 males and 214 females. The levels of occupations were (1) high level (white collar); (2) low level (blue collar); (3) unemployed, for fathers; and (4) housewife, for mothers.

Table 36 shows the analysis of variance F values which were main effects, 2.303; sex, 3.295; fathers' occupation, 1.54; and interaction, .266. The significance levels were main effects, .075; sex, .067; fathers' occupation, .213; and interaction, .999. Since all

Table 33

Cell Means of Russell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| No Response | 8 | 56.500 | 11.588 | 11 | 45.636 | 14.692 |
| Owners | 30 | 53.867 | 14.362 | 23 | 44.913 | 10.604 |
| Managers | 18 | 44.611 | 12.589 | 14 | 44.286 | 10.194 |
| Laborers | 76 | 49.921 | 14.659 | 94 | 45.809 | 11.629 |
| Mothers' Occupation: | | | | | | |
| No Response | 88 | 49.727 | 15.394 | 93 | 46.032 | 11.945 |
| Owners | 3 | 60.000 | 19.079 | 3 | 44.000 | 5.568 |
| Managers | 3 | 49.000 | 7.810 | 5 | 50.600 | 14.605 |
| Laborers | 38 | 51.632 | 11.813 | 41 | 43.780 | 10.333 |
| Total by Sex | 132 | 50.492 | 14.359 | 142 | 45.500 | 11.485 |
| Sex Not Reported | 3 | 47.667 | 14.468 | 3 | 47.667 | 14.468 |
| All Russell County Seniors | 277 | 47.9025 | 13.1505 | 277 | 47.9025 | 13.1505 |

Table 34

Analysis of Variance F Values for Russell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 1964.808 | 3 | 654.936 | 3.959 | 0.099 |
| Sex | 1354.729 | 1 | 1354.729 | 8.189 | 0.005 |
| Fathers' Occupation (Owner, Manager, Laborer) | 607.314 | 2 | 303.657 | 1.836 | 0.159 |
| Interaction | 400.558 | 2 | 200.279 | 1.211 | 0.300 |
| Within | 41,192.039 | 249 | 165.430 | | |
| Total | 43,557.406 | 254 | 171.486 | | |
| Mothers: | | | | | |
| Main Effects | 1481.879 | 3 | 493.960 | 3.837 | 0.012 |
| Sex | 1338.645 | 1 | 1338.645 | 10.399 | 0.00 |
| Mothers' Occupation (Owner, Manager, Laborer) | 166.373 | 2 | 83.186 | 0.646 | 0.999 |
| Interaction | 265.774 | 2 | 132.887 | 1.032 | 0.362 |
| Within | 11,198.941 | 87 | 128.723 | | |
| Total | 12,946.598 | 92 | 140.724 | | |

Table 35

Cell Means of Tazewell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| High Level (White Collar) | 58 | 48.879 | 12.415 | 62 | 47.387 | 13.276 |
| Low Level (Blue Collar) | 154 | 52.097 | 12.706 | 126 | 49.135 | 14.734 |
| Unemployed | 16 | 49.000 | 6.261 | 26 | 48.808 | 14.091 |
| Mothers' Occupation: | | | | | | |
| High Level (White Collar) | 58 | 51.948 | 12.845 | 62 | 50.565 | 12.025 |
| Low Level (Blue Collar) | 33 | 50.030 | 12.274 | 24 | 44.667 | 14.181 |
| Housewife | 137 | 50.934 | 12.210 | 128 | 48.367 | 15.089 |
| Total by Sex | 228 | 51.061 | 12.343 | 214 | 48.589 | 14.205 |
| Sex Not Reported | 4 | 45.500 | 4.041 | 4 | 45.500 | 4.041 |
| All Tazewell County Seniors | 446 | 49.8251 | 13.2701 | 446 | 49.8251 | 13.2701 |

Table 36

Analysis of Variance F Values for Tazewell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 1218.753 | 3 | 406.251 | 2.303 | 0.075 |
| Sex | 581.323 | 1 | 581.323 | 3.295 | 0.067 |
| Fathers' Occupation (White Collar, Blue Collar, Unemployed) | 543.856 | 2 | 271.928 | 1.541 | 0.213 |
| Interaction | 93.964 | 2 | 46.982 | 0.266 | 0.999 |
| Within | 76,921.688 | 436 | 176.426 | | |
| Total | 78,234.438 | 441 | 177.402 | | |
| Mothers: | | | | | |
| Main Effects | 1224.772 | 3 | 408.257 | 2.316 | 0.074 |
| Sex | 742.674 | 1 | 742.674 | 4.213 | 0.038 |
| Mothers' Occupation (White Collar, Blue Collar, Housewife) | 549.875 | 2 | 274.938 | 1.560 | 0.210 |
| Interaction | 150.522 | 2 | 75.261 | 0.427 | 0.999 |
| Within | 76,859.125 | 436 | 176.282 | | |
| Total | 78,234.438 | 441 | 177.402 | | |

significance levels exceeded .05, hypotheses three and five were accepted as tenable for Tazewell County seniors.

Analysis of variance F values for mothers' occupation were main effects, 2.316; sex, 4.213; mothers' occupation, 1.560; and interaction, 0.427. The significance levels were main effects, .074; sex, .038; mothers' occupation, .210; and interaction, .999. Since there was significance only for sex at the .05 level, hypotheses four and six were accepted as tenable for Tazewell County seniors.

The alternative classification scheme used to group fathers' occupations according to the categories (1) owners, (2) managers, and (3) laborers is presented in Table 37, which shows the number of subjects, mean scores, and standard deviations.

Table 38 shows the analysis of variance F values which were main effects, 1.945; sex, 3.979; fathers' occupation, .971; and interaction, .872. The levels of significance were main effects, .120; sex, .044; fathers' occupation, .999; and interaction, .999. Since there was significance only for sex at the .05 level, hypotheses three and five were accepted as tenable for Tazewell County seniors.

Analysis of variance F values for mothers' occupation were as follows: main effects, .489; sex, 1.435; mothers' occupation, .001; and interaction, .710. Since there was no significance for any independent variable, hypotheses four and six were accepted as tenable for Tazewell County seniors.

Entire population. Table 39 shows the analysis of variance F values for all seniors by fathers' and mothers' occupations grouped as (1) white collar, (2) blue collar, (3) unemployed (fathers), and housewife (mothers). The F values for fathers' occupations by sex were main

Table 37

Cell Means of Tazewell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Occupation: | | | | | | |
| No Response | 16 | 49.000 | 6.261 | 26 | 48.808 | 14.091 |
| Owners | 35 | 51.429 | 11.335 | 36 | 52.056 | 16.278 |
| Managers | 50 | 52.460 | 11.440 | 37 | 47.405 | 11.514 |
| Laborers | 127 | 50.669 | 13.518 | 115 | 47.835 | 14.332 |
| Mothers' Occupation: | | | | | | |
| No Response | 137 | 50.934 | 12.210 | 128 | 48.367 | 15.089 |
| Owners | 9 | 53.111 | 13.337 | 7 | 46.714 | 7.205 |
| Managers | 17 | 49.471 | 13.323 | 10 | 52.200 | 11.223 |
| Laborers | 65 | 51.462 | 12.470 | 69 | 48.667 | 13.535 |
| Total by Sex | 228 | 51.061 | 12.343 | 214 | 48.589 | 14.205 |
| Sex Not Reported | 4 | 45.500 | 4.041 | 4 | 45.500 | 4.041 |
| All Tazewell County Seniors | 446 | 49.8251 | 13.2701 | 446 | 49.8251 | 13.2701 |

Table 38

Analysis of Variance F Values for Tazewell County Seniors by Three Levels of Fathers' and Mothers' Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 1055.367 | 3 | 351.789 | 1.945 | 0.120 |
| Sex | 719.719 | 1 | 719.719 | 3.979 | 0.044 |
| Fathers' Occupation (Owner, Manager, Laborer) | 315.182 | 2 | 175.591 | 0.971 | 0.999 |
| Interaction | 315.435 | 2 | 157.718 | 0.872 | 0.999 |
| Within | 71,267.688 | 394 | 180.882 | | |
| Total | 72,638.500 | 399 | 182.051 | | |
| Mothers: | | | | | |
| Main Effects | 241.342 | 3 | 80.447 | 0.489 | 0.999 |
| Sex | 235.947 | 1 | 235.947 | 1.435 | 0.231 |
| Mothers' Occupation (Owner, Manager, Laborer) | 0.452 | 2 | 0.226 | 0.001 | 0.999 |
| Interaction | 233.514 | 2 | 116.757 | 0.710 | 0.999 |
| Within | 28,117.313 | 171 | 164.429 | | |
| Total | 28,592.172 | 176 | 162.456 | | |

Table 39

Analysis of Variance F Values for All Seniors
by Three Levels of Fathers' and Mothers'
Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 2712.336 | 3 | 904.112 | 5.634 | .001 |
| Sex | 2406.349 | 1 | 2406.349 | 14.995 | .001 |
| Fathers' Occupation (White Collar, Blue Collar, Unemployed) | 273.678 | 2 | 136.839 | .853 | .999 |
| Interaction | 188.684 | 2 | 94.342 | .588 | .999 |
| Within | 186,318.063 | 1161 | 160.481 | | |
| Total | 189,219.125 | 1166 | 162.281 | | |
| Mothers: | | | | | |
| Main Effects | 2967.251 | 3 | 989.083 | 6.175 | .001 |
| Sex | 2223.543 | 1 | 2523.543 | 15.755 | .001 |
| Mothers' Occupation (White Collar, Blue Collar, Housewife) | 528.594 | 2 | 264.297 | 1.650 | .190 |
| Interaction | 291.134 | 2 | 145.567 | .909 | .999 |
| Within | 185,960.688 | 1161 | 160.173 | | |
| Total | 189,219.125 | 1166 | 162.173 | | |

effects, 5.634; sex, 14.995; fathers' occupation, .853; and interaction, .588. The significance levels were main effects, .001; sex, .001; fathers' occupation, .999; and interaction, .999. Since the fathers' occupation was not significant at the .05 level, hypotheses three and five were accepted as tenable for the entire population.

The F values for mothers' occupations by sex were main effects, 6.175; sex, 15.755; mothers' occupation, 1.650; and interaction, .909. The significance levels were main effects, .001; sex, .001; mothers' occupation, .190; and interaction, .999. Since mothers' occupation was significant only at the .190 level, hypotheses four and six were accepted as tenable for the entire population.

Table 40 shows the analysis of variance F values for all seniors by fathers' and mothers' occupations grouped by (1) owner, (2) manager, and (3) laborer. The F values for fathers' occupations by sex were main effects, 5.755; sex, 11.500; fathers' occupation, 2.626; and interaction, .001. The significance levels were main effects, .001; sex, .001; fathers' occupation, .071; and interaction, .999. Since fathers' occupation was significant at .071, hypotheses three and five were accepted as tenable for the entire population.

The F values for mothers' occupation by sex were main effects, 3.971; sex, 11.702; mothers' occupation, .035; and interaction, 1.160. Significance levels were main effects, .008; sex, .001; mothers' occupation, .999; and interaction, .315. Since mothers' occupation was significant at .999, hypotheses four and six were accepted as tenable for the entire population.

Table 40

Analysis of Variance F Values for All Seniors
by Three Levels of Fathers' and Mothers'
Occupations by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 2802.775 | 3 | 934.258 | 5.755 | .001 |
| Sex | 1866.802 | 1 | 1866.802 | 11.500 | .001 |
| Fathers' Occupation (Owner, Manager, Laborer) | 852.648 | 2 | 426.324 | 2.626 | .071 |
| Interaction | .186 | 2 | .093 | .001 | .999 |
| Within | 169,305.500 | 1043 | 162.326 | | |
| Total | 172,108.500 | 1058 | 164.226 | | |
| Mothers: | | | | | |
| Main Effects | 1754.097 | 3 | 584.699 | 3.971 | .008 |
| Sex | 1722.947 | 1 | 1722.947 | 11.702 | .001 |
| Mothers' Occupation (Owner, Manager, Laborer) | 10.328 | 2 | 5.164 | .035 | .999 |
| Interaction | 341.557 | 2 | 170.779 | 1.160 | .315 |
| Within | 57,272.563 | 389 | 147.230 | | |
| Total | 59,368.219 | 394 | 150.681 | | |

Hypotheses Seven, Eight Nine, and Ten

Hypothesis seven: there is no significant difference between attitudes of senior males on measures of fathers' education.

Hypothesis eight: there is no significant difference between attitudes of senior males on measures of mothers' education.

Hypothesis nine: there is no significant difference between attitudes of senior females on measures of fathers' education.

Hypothesis ten: there is no significant difference between attitudes of senior females on measures of mothers' education.

Seniors reported educational levels of fathers and mothers according to an eleven-factor scale ranging from "received a graduate school degree" at the top to "completed less than seven grades" at the bottom. The categories were grouped to form three levels (1) high level, which included all seven categories of education beyond the high-school diploma; (2) medium level, a high-school diploma; and (3) low level, all three categories below the high-school diploma.

Buchanan County. Table 41 shows the number of subjects, mean scores, and standard deviations for senior males and females according to three levels of education of fathers and mothers. There were 125 males and 143 females.

Table 42 shows the analysis of variance F values for fathers' education, which were main effects, .652; sex, .088; fathers' education, .878; and interaction, .602. The significance levels were .999 for each independent variable. Therefore hypotheses seven and nine were accepted as tenable for Buchanan County seniors.

The analysis of variance F values for mothers' education were

Table 41

Cell Means of Buchanan County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Education: | | | | | | |
| No Response | 2 | 37.500 | 20.506 | 5 | 49.000 | 16.688 |
| High Level | 23 | 54.870 | 13.140 | 14 | 50.500 | 16.640 |
| Medium Level | 17 | 49.059 | 11.798 | 16 | 50.750 | 10.129 |
| Low Level | 83 | 50.446 | 10.506 | 107 | 50.346 | 12.717 |
| Mothers' Education: | | | | | | |
| No Response | 5 | 47.600 | 15.614 | 4 | 47.500 | 18.735 |
| High Level | 28 | 56.821 | 11.235 | 15 | 49.400 | 13.282 |
| Medium Level | 23 | 47.913 | 10.664 | 30 | 52.000 | 11.185 |
| Low Level | 69 | 49.667 | 10.888 | 94 | 50.106 | 13.167 |
| Total by Sex | 125 | 50.864 | 11.463 | 143 | 50.357 | 12.839 |
| Sex Not Reported | 5 | 54.200 | 11.100 | 5 | 54.200 | 11.100 |
| All Buchanan County Seniors | 273 | 50.6593 | 12.1682 | 273 | 50.6593 | 12.1682 |

Table 42

Analysis of Variance F Values for Buchanan County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 287.620 | 3 | 95.873 | 0.652 | 0.999 |
| Sex | 12.987 | 1 | 12.987 | 0.088 | 0.999 |
| Fathers' Education (High, Medium, Low) | 258.309 | 2 | 129.153 | 0.878 | 0.999 |
| Interaction | 177.216 | 2 | 88.608 | 0.602 | 0.999 |
| Within | 37,356.332 | 254 | 147.072 | | |
| Total | 37,821.172 | 259 | 146.028 | | |
| Mothers: | | | | | |
| Main Effects | 647.630 | 3 | 215.877 | 1.509 | 0.211 |
| Sex | 0.051 | 1 | 0.051 | 0.000 | 0.999 |
| Mothers' Education (High, Medium, Low) | 627.354 | 2 | 313.677 | 2.193 | 0.111 |
| Interaction | 763.089 | 2 | 381.545 | 2.667 | 0.070 |
| Within | 36,191.332 | 253 | 143.049 | | |
| Total | 37,602.055 | 258 | 145.744 | | |

main effects, 1.509; sex, .000; mothers' education, 2.193; and interaction, 2.667. The levels of significance exceeded .05 for each of the independent variables. Therefore hypotheses eight and ten were accepted as tenable for Buchanan County seniors.

Dickenson County. Table 43 shows the number of subjects, mean scores, and standard deviations for senior males and females according to three levels of education of fathers and mothers. There were 88 males and 95 females.

Table 44 shows the analysis of variance F values for fathers' education, which were main effects, 1.958; sex, 5.706; fathers' education, .015; and interaction, .598. The significance levels were main effects, .120; sex, .017; fathers' education, .999; and interaction, .999. Only sex was significant at the .05 level; therefore, hypotheses seven and nine were accepted as tenable.

Analysis of variance F values for mothers' education were main effects, 3.101; sex, 6.461; mothers' education, 1.357; and interaction, 2.230. The significance levels were main effects, .028; sex, .012; mothers' education, .259; and interaction, .108. Sex was the only independent variable significant at the .05 level; therefore, hypotheses eight and ten were accepted as tenable for Dickenson County seniors.

Russell County. Table 45 shows the number of subjects, mean scores, and standard deviations for senior males and females according to three levels of education of fathers and mothers. There were 132 males and 142 females.

Table 46 shows the analysis of variance F values for fathers' education which were main effects, 4.140; sex, 10.999; fathers' education, .755; and interaction, .100. The significance levels were main

Table 43

Cell Means of Dickenson County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Education: | | | | | | |
| No Response | 1 | 59.000 | 0.0 | 1 | 34.000 | 0.0 |
| High Level | 19 | 47.316 | 11.171 | 17 | 46.882 | 7.777 |
| Medium Level | 16 | 49.375 | 12.010 | 11 | 45.545 | 12.078 |
| Low Level | 52 | 49.654 | 11.427 | 66 | 44.667 | 10.605 |
| Mothers' Education: | | | | | | |
| No Response | 4 | 48.250 | 8.694 | 2 | 47.500 | 4.950 |
| High Level | 16 | 46.188 | 12.117 | 17 | 48.941 | 10.738 |
| Medium Level | 20 | 53.100 | 9.722 | 21 | 45.667 | 10.725 |
| Low Level | 48 | 48.667 | 11.808 | 55 | 43.530 | 10.044 |
| Total by Sex | 88 | 49.205 | 11.369 | 95 | 45.053 | 10.277 |
| Sex Not Reported | 5 | 40.800 | 5.933 | 5 | 40.800 | 5.933 |
| All Dickenson County Seniors | 188 | 46.8830 | 10.9182 | 188 | 46.8830 | 10.9182 |

Table 44

Analysis of Variance F Values for Dickenson County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 698.420 | 3 | 232.807 | 1.958 | 0.120 |
| Sex | 678.435 | 1 | 678.435 | 5.706 | 0.017 |
| Fathers' Education (High, Medium, Low) | 3.530 | 2 | 1.765 | 0.015 | 0.999 |
| Interaction | 142.257 | 2 | 71.129 | 0.598 | 0.999 |
| Within | 20,806.492 | 175 | 118.894 | | |
| Total | 21,647.172 | 180 | 120.262 | | |
| Mothers: | | | | | |
| Main Effects | 1096.970 | 3 | 365.656 | 3.101 | 0.028 |
| Sex | 761.711 | 1 | 761.711 | 6.461 | 0.012 |
| Mothers' Education (High, Medium, Low) | 320.018 | 2 | 160.009 | 1.357 | 0.259 |
| Interaction | 525.864 | 2 | 262.932 | 2.230 | 0.108 |
| Within | 20,043.453 | 170 | 117.903 | | |
| Total | 21,666.289 | 175 | 123.807 | | |

Table 45

Cell Means of Russell County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Education: | | | | | | |
| No Response | 3 | 55.000 | 4.359 | 3 | 62.333 | 4.726 |
| High Level | 31 | 48.903 | 13.600 | 25 | 44.120 | 11.103 |
| Medium Level | 22 | 48.636 | 11.850 | 30 | 44.533 | 13.122 |
| Low Level | 76 | 51.500 | 15.570 | 84 | 45.655 | 10.796 |
| Mothers' Education: | | | | | | |
| No Response | 1 | 55.000 | 0.0 | 5 | 52.400 | 17.785 |
| High Level | 22 | 52.500 | 12.243 | 28 | 46.571 | 11.692 |
| Medium Level | 40 | 48.850 | 13.757 | 42 | 44.381 | 11.378 |
| Low Level | 69 | 50.739 | 15.463 | 67 | 45.239 | 11.014 |
| Total by Sex | 132 | 50.492 | 14.359 | 142 | 45.500 | 11.485 |
| Sex Not Reported | 3 | 47.667 | 14.468 | 3 | 47.667 | 14.468 |
| All Russell County Seniors | 277 | 47.9025 | 13.1505 | 277 | 47.9025 | 13.1505 |

Table 46

Analysis of Variance F Values for Russell County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 2100.150 | 3 | 700.050 | 4.140 | 0.007 |
| Sex | 1859.821 | 1 | 1859.821 | 10.999 | 0.001 |
| Fathers' Education (High, Medium, Low) | 255.404 | 2 | 127.702 | 0.755 | 0.999 |
| Interaction | 33.741 | 2 | 16.870 | 0.100 | 0.999 |
| Within | 44,303.375 | 262 | 169.097 | | |
| Total | 46,437.270 | 267 | 173.922 | | |
| Mothers: | | | | | |
| Main Effects | 2078.553 | 3 | 692.851 | 4.145 | 0.007 |
| Sex | 1850.306 | 1 | 1850.306 | 11.070 | 0.001 |
| Mothers' Education (High, Medium, Low) | 260.938 | 2 | 130.469 | 0.781 | 0.999 |
| Interaction | 20.284 | 2 | 10.142 | 0.061 | 0.999 |
| Within | 43,792.379 | 262 | 167.146 | | |
| Total | 45,891.219 | 267 | 171.877 | | |

effects, .007; sex, .001; fathers' education, .999; and interaction, .999. Since the independent variable "fathers' education" was not significant at the .05 level, hypotheses seven and nine were accepted as tenable for Russell County seniors.

Analysis of variance F values for mothers' education were main effects, 4.145; sex, 11.070; mothers' education, .781; and interaction, .061. The significance levels were main effects, .007; sex, .001; mothers' education, .999; and interaction, .999. Since the independent variable "mothers' education" was not significant at the .05 level, hypotheses eight and ten were accepted as tenable for Russell County seniors.

Tazewell County. Table 47 shows the number of subjects, mean scores, and standard deviations for senior males and females according to three levels of education of fathers and mothers. There were 228 males and 214 females.

Table 48 shows the analysis of variance F values for fathers' education, which were main effects, 1.938; sex, 3.562; fathers' education, 1.028; and interaction, .284. The significance levels were main effects, .121; sex, .057; fathers' education, .360; and interaction, .999. The independent variable "fathers' education" was not significant at the .05 level; therefore, hypotheses seven and nine were accepted as tenable for Tazewell County seniors.

Analysis of variance F values for mothers' education were main effects, 1.233; sex, 3.338; mothers' education, .187; and interaction, .116. The significance levels were main effects, .297; sex, .065; mothers' education, .999; and interaction, .999. The independent variable "mothers' education" was not significant at the .05 level;

Table 47

Cell Means of Tazewell County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. |
| Fathers' Education: | | | | | | |
| No Response | 3 | 54.333 | 13.577 | 7 | 52.857 | 12.020 |
| High Level | 70 | 51.700 | 12.523 | 58 | 50.638 | 13.976 |
| Medium Level | 52 | 50.962 | 13.312 | 52 | 47.308 | 10.988 |
| Low Level | 103 | 50.580 | 11.728 | 97 | 47.742 | 15.908 |
| Mothers' Education: | | | | | | |
| No Response | 7 | 57.000 | 9.504 | 9 | 52.222 | 14.839 |
| High Level | 52 | 51.962 | 12.828 | 48 | 48.563 | 16.144 |
| Medium Level | 77 | 50.416 | 12.491 | 76 | 48.671 | 13.644 |
| Low Level | 92 | 50.640 | 12.054 | 81 | 48.120 | 13.717 |
| Total by Sex | 228 | 51.061 | 12.343 | 214 | 48.589 | 14.205 |
| Sex Not Reported | 4 | 45.000 | 4.041 | 4 | 45.000 | 4.041 |
| All Tazewell County Seniors | 446 | 49.8251 | 13.2701 | 446 | 49.8251 | 13.2701 |

Table 48

Analysis of Variance F Values for Tazewell County Seniors by Three Levels of Fathers' and Mothers' Education by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 1030.682 | 3 | 343.561 | 1.938 | 0.121 |
| Sex | 631.308 | 1 | 631.308 | 3.562 | 0.057 |
| Fathers' Education (High, Medium, Low) | 364.425 | 2 | 182.213 | 1.028 | 0.360 |
| Interaction | 100.704 | 3 | 50.352 | 0.284 | 0.999 |
| Within | 75,333.125 | 425 | 177.254 | | |
| Total | 76,464.563 | 430 | 177.825 | | |
| Mothers: | | | | | |
| Main Effects | 658.452 | 3 | 219.484 | 1.233 | 0.297 |
| Sex | 594.141 | 1 | 594.141 | 3.338 | 0.065 |
| Mothers' Education (High, Medium, Low) | 66.530 | 2 | 33.265 | 0.187 | 0.999 |
| Interaction | 41.456 | 2 | 20.728 | 0.116 | 0.999 |
| Within | 74,400.000 | 418 | 177.990 | | |
| Total | 75,099.938 | 423 | 177.541 | | |

therefore, hypotheses eight and ten were accepted as tenable for Tazewell County seniors.

Entire population. Table 49 shows the analysis of variance F values for all seniors by fathers' and mothers' education grouped by three categories (1) high, (2) medium, and (3) low. The F values for fathers' education by sex were main effects, 5.731; sex, 15.201; fathers' education, .726; and interaction, .075. Significance levels were main effects, .001; sex, .001; fathers' education, .999; and interaction, .999. Since fathers' education was significant at the .999 level, hypotheses seven and nine were accepted as tenable for the entire population.

The F values for mothers' education by sex were main effects, 6.005; sex, 14.554; mothers' education, 1.526; and interaction, .466. Significance levels were main effects, .001; sex, .001; mothers' education, .216; and interaction, .999. Since mothers' education was significant at .216, hypotheses eight and ten were accepted as tenable for the entire population.

Hypotheses Eleven and Twelve

Hypothesis eleven: there is no significant difference between attitudes of senior males and senior females among the counties of the Cumberland Plateau Planning District.

Hypothesis twelve: there is no significant difference between attitudes of senior males and senior females on the social sub-scale.

Table 50 shows the number of subjects, mean scores, and standard deviations by sex and county.

Table 51 shows the analysis of variance F values by sex by

Table 49

Analysis of Variance F Values for All Seniors
by Three Levels of Fathers' and Mothers'
Education by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Fathers: | | | | | |
| Main Effects | 2755.375 | 3 | 918.458 | 5.731 | .001 |
| Sex | 2436.207 | 1 | 2436.207 | 15.201 | .001 |
| Fathers' Education (High, Medium, Low) | 232.799 | 2 | 116.399 | .726 | .999 |
| Interaction | 24.014 | 2 | 12.007 | .075 | .999 |
| Within | 181,742.375 | 1134 | 160.267 | | |
| Total | 184,521.813 | 1139 | 162.003 | | |
| Mothers: | | | | | |
| Main Effects | 2879.937 | 3 | 959.979 | 6.005 | .001 |
| Sex | 2326.632 | 1 | 2326.632 | 14.554 | .001 |
| Mothers' Education (High, Medium, Low) | 487.831 | 2 | 243.915 | 1.526 | .216 |
| Interaction | 142.696 | 2 | 71.348 | 0.466 | .999 |
| Within | 179,200.063 | 1121 | 159.857 | | |
| Total | 182,222.750 | 1126 | 161.832 | | |

Table 50

Cell Means for All Seniors by Sex by County

| | N | Mean | S.D. |
|---|---|---|---|
| All Senior Males: | 643 | 50.602 | 12.438 |
| Buchanan | 145 | 50.566 | 11.125 |
| Dickenson | 104 | 49.500 | 12.251 |
| Russell | 144 | 50.236 | 14.025 |
| Tazewell | 250 | 51.292 | 12.296 |
| All Senior Females: | 675 | 47.910 | 12.800 |
| Buchanan | 163 | 49.853 | 13.706 |
| Dickenson | 100 | 45.410 | 10.250 |
| Russell | 162 | 46.000 | 11.187 |
| Tazewell | 250 | 48.880 | 13.794 |
| Sex Not Reported | 22 | 49.500 | 10.992 |
| Total | 1,340 | 49.2276 | 12.6619 |

Table 51

Analysis of Variance F Values for Seniors
by Sex by County

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 4126.199 | 4 | 1031.550 | 6.516 | 0.001 |
| Sex | 2395.185 | 1 | 2395.185 | 15.130 | .001 |
| County | 1739.382 | 3 | 579.794 | 3.662 | .012 |
| Interaction | 591.823 | 3 | 197.274 | 1.246 | 0.291 |
| Within | 207,388.250 | 1310 | 158.312 | | |
| Total | 212,106.313 | 1317 | 161.053 | | |

county, which were main effects, 6.516; sex, 15.130; county, 3.662; and interaction, 1.246. The significance levels were main effects, .001; sex, .001; county, .012; and interaction, .291. There was significance below the .05 level for sex and county.

To verify these results by county, a t-test was calculated between males and females for each county and between males and females for the entire population.

Table 52 shows the t values which were: Buchanan, .50; Dickenson, 2.58; Russell, 2.93; Tazewell, 2.06; and total population, 3.87. The significance levels were Buchanan, .619; Dickenson, .011; Russell, .004; Tazewell, .040; and total population, .000. Since the F values for counties were significant at the .05 level except for Buchanan, hypotheses eleven and twelve were rejected as not tenable for all counties except for Buchanan. For the entire population, hypotheses eleven and twelve were rejected as not tenable for all senior males and females.

Hypothesis Thirteen

Hypothesis thirteen: there is no significant difference between attitudes of senior males and senior females on the economic sub-scale.

As stated in chapter three, the economic sub-scale had a reliability coefficient of .67 on the full test. The standard for the acceptance or rejecting of the scale was set at .70 as recommended by James Bruning and B. L. Kintz. Therefore, the economic scale was rejected and not used in this study. Hypothesis thirteen could not be measured since data were not collected.

Table 52

t Values by Subject Type, Sex, and County

| County | Males versus Females | | | Males versus Teachers | | | Females versus Teachers | | |
|---|---|---|---|---|---|---|---|---|---|
| | df | t | Significance Level | df | t | Significance Level | df | t | Significance Level |
| Buchanan | 306 | .50 | .619 | 221 | 3.88 | .000 | 239 | 3.83 | .000 |
| Dickenson | 202 | 2.58 | .011 | 129 | 2.45 | .016 | 125 | 1.19 | .238 |
| Russell | 304 | 2.93 | .004 | 196 | 2.81 | .005 | 214 | 5.37 | .000 |
| Tazewell | 498 | 2.06 | .040 | 321 | .59 | .556 | 321 | 1.85 | .065 |
| Total | 1,316 | 3.87 | .000 | 873 | 3.06 | .002 | 905 | 5.64 | .000 |

Hypotheses Fourteen and Fifteen

Hypothesis fourteen: there is no significant difference between the attitudes of senior males and attitudes of their teachers.

Hypothesis fifteen: there is no significant difference between the attitudes of senior females and the attitudes of their teachers.

Table 50 shows the number of subjects, mean scores, and standard deviations for senior males and senior females. Table 53 presents the number of subjects, mean scores, and standard deviations for teachers.

Table 52 shows the t values and significance levels for seniors and teachers by counties and for the entire population.

Buchanan County. The t values were males versus teachers, 3.88, significant at .000; females versus teachers, 3.83; significant at .000. Therefore, hypotheses fourteen and fifteen were rejected as not tenable for Buchanan County seniors and teachers.

Dickenson County. The t values were males versus teachers, 2.45, significant at .016; females versus teachers, 1.19, significant at .238. Therefore, hypothesis fourteen was rejected as not tenable for Dickenson County males versus teachers, but hypothesis fifteen was accepted as tenable for Dickenson County females versus teachers.

Russell County. The t values were males versus teachers, 2.81, significant at .005; and females versus teachers, 5.37, significant at .000. Therefore, hypotheses fourteen and fifteen were rejected as not tenable for Russell County seniors versus teachers.

Table 53

Teacher Respondents' Means and Standard Deviations by County

| County | N | Mean | S.D. |
|---|---|---|---|
| Buchanan | 78 | 56.808 | 12.038 |
| Dickenson | 27 | 42,185 | 18.829 |
| Russell | 54 | 56.963 | 17.351 |
| Tazewell | 73 | 52.288 | 14.055 |

Tazewell County. The t values were males versus teachers, .59. significant at .556; and females versus teachers, 1.85; significant at .065. Therefore, hypotheses fourteen and fifteen were accepted as tenable for Tazewell County seniors versus teachers.

Entire population. The t values were males versus teachers, 3.06, significant at .002; and females versus teachers, 5.64, significant at .000. Therefore, hypotheses fourteen and fifteen were rejected as not tenable for all seniors versus all teachers in the population of this study.

## Hypothesis Sixteen

The sixteenth hypothesis stated that there was no significant relationship between the "expected educational level to be attained" and the "stated amount of education that should be attained."

Seniors were asked to indicate how much education they intended to get and to indicate how much education they thought today's senior should get for tomorrow's world. Responses were recorded on a six-factor scale from "received a graduate school degree" at the top to "received a high school diploma" at the bottom. A Pearson product moment correlation coefficient was calculated to determine if there were a significant relationship.

Table 54 shows the r values for males and females by county and total population. All r's were significant at the .05 level. Therefore, hypothesis fifteen was rejected as not tenable for each of the counties by sex, and it also was rejected as not tenable for all seniors in the population.

Table 54

Correlation of Expected Education with Level of Education
That Should Be Achieved by Sex by County

| County | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | N | r | Significance | N | r | Significance |
| Buchanan | 145 | .2006 | .008 | 163 | .2966 | .001 |
| Dickenson | 104 | .2012 | .020 | 100 | .2771 | .003 |
| Russell | 144 | .2672 | .001 | 162 | .3349 | .001 |
| Tazewell | 250 | .4269 | .001 | 250 | .2525 | .001 |
| Total | 643 | .3013 | .001 | 675 | .2874 | .001 |

Hypothesis Seventeen

Hypothesis seventeen: there is no significant difference between the attitudes of seniors who plan to attend college and the attitudes of seniors who do not plan to attend college.

Seniors indicated their post-high school plans by responding to a nine-factor scale with these categories: (1) attend a two-year college, (2) attend a four-year college, (3) attend other type of post-secondary school, (4) enter military service, (5) get a job, (6) travel, (7) get married (no outside job), (8) no definite plans, and (9) do not know.

The scale was dichotomized for summary and comparative purposes. Categories one and two were grouped to categorize seniors who planned to attend college, and categories three through nine were grouped to form the category of seniors not planning to attend college.

Table 55 shows the number of subjects, mean scores, and standard deviations for seniors by categories.

Table 56 shows the analysis of variance F values for seniors by plans by sex, which were main effects, 15.034; sex, 17.365; plans, 14.573; and interaction, 26.645. The significance levels were main effects, .001; sex, .001; plans, .001; and interaction, .999. Since there was significance for main effects, sex, and plans, hypothesis seventeen was rejected as not tenable.

Hypothesis Eighteen

Hypothesis eighteen: there is no significant difference between the attitudes of senior males and senior females according to family size as measured by the number of siblings.

Table 55

Mean, Standard Deviations and t Values for Seniors by Plans

| | N | Mean | SD | df | t | Significance Level |
|---|---|---|---|---|---|---|
| Plans-- Attend community college or four-year college | 445 | 51.038 | 13.420 | | | |
| Plans-- Do not plan to attend community college or four-year college | 845 | 48.370 | 12.302 | 1288 | 3.59 | .000 |
| Total | 1290 | 49.2907 | 12.7566 | | | |

Table 56

Analysis of Variance F Values for Seniors
by Plans by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 4801.074 | 2 | 2400.537 | 15.034 | .001 |
| Sex | 2772.771 | 1 | 2772.771 | 17.365 | .001 |
| Plans | 2326.926 | 1 | 2326.926 | 14.573 | .001 |
| Interaction | 26.645 | 1 | 26.645 | .167 | .999 |
| Within SS | 202785.250 | 1270 | 159.673 | | |
| Total SS | 207613.000 | 1273 | 163.090 | | |

Seniors indicated how many brothers and sisters they had when they completed the biographical data form. The number of siblings was grouped by four levels: (1) no siblings, (2) one or two siblings, (3) three or four siblings, and (4) five or more siblings.

Buchanan County. Table 57 shows the number of subjects, mean scores, and standard deviations for senior males and females according to four levels of siblings. There were 145 males and 163 females.

Table 58 presents the analysis of variance F values for siblings by sex which were main effects, 1.194; sex, .093; siblings, 1.510; interaction, .305. The significance levels of each independent variable was greater than .05; therefore, hypothesis eighteen was accepted as tenable for Buchanan County seniors.

Dickenson County. Table 59 shows the number of subjects, mean scores, and standard deviations for senior males and females according to four levels of siblings. There were 104 males and 100 females.

Table 60 shows the analysis of variance F values which were main effects, 2.461; sex, 5.785; siblings, 1.074; and interaction, .553. The significance levels were main effects, .046; sex, .016; siblings, .362; and interaction, .999. Since the level of significance for siblings exceeded the .05 level, hypothesis eighteen was accepted as tenable for Dickenson County seniors.

Russell County. Table 61 shows the number of subjects, mean scores, and standard deviations for senior males and females according to four levels of siblings. There were 144 males and 162 females.

Table 62 shows the analysis of variance F values which were main effects, 2.396; sex, 8.693; siblings, .325; and interaction, 1.656.

Table 57

Cell Means for Buchanan County Seniors by Sex by Siblings

| Siblings | Sex | | | | Main Effects | |
|---|---|---|---|---|---|---|
| | Male | | Female | | | |
| | # | Mean | # | Mean | # | Mean |
| No Siblings | 14 | 54.500 | 8 | 56.750 | 22 | 55.318 |
| One or Two Siblings | 50 | 51.460 | 58 | 49.879 | 108 | 50.611 |
| Three or Four Siblings | 46 | 49.957 | 43 | 48.698 | 89 | 49.351 |
| Five or More Siblings | 35 | 48.514 | 54 | 49.722 | 89 | 49.247 |
| Main Effects | 145 | 50.566 | 163 | 49.853 | 308 | 50.189 |

All Seniors: Mean = 50.2762, N = 315
(which includes Sex Not Reported: N = 7, Mean = 54.143, S.D. = 9.353)

Table 58

Analysis of Variance F Values for Buchanan County Seniors by Four Levels of Siblings

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 754.527 | 4 | 188.632 | 1.194 | 0.313 |
| Sex | 14.718 | 1 | 14.718 | 0.093 | 0.999 |
| Siblings | 715.548 | 3 | 238.516 | 1.510 | 0.211 |
| Interaction | 144.376 | 3 | 48.125 | 0.305 | 0.999 |
| Within | 47,397.645 | 300 | 157.992 | | |
| Total | 48,296.551 | 307 | 157.318 | | |

Table 59

Cell Means for Dickenson County Seniors by Sex by Siblings

| Siblings | Sex | | | | Main Effects | |
|---|---|---|---|---|---|---|
| | Male | | Female | | | |
| | # | Mean | # | Mean | # | Mean |
| No Siblings | 3 | 46.000 | 5 | 45.400 | 8 | 45.625 |
| One or Two Siblings | 38 | 51.789 | 29 | 47.000 | 67 | 49.716 |
| Three or Four Siblings | 28 | 49.214 | 32 | 43.156 | 60 | 45.983 |
| Five or More Siblings | 35 | 47.543 | 34 | 46.176 | 69 | 46.869 |
| Main Effects | 104 | 49.500 | 100 | 45.410 | 204 | 47.495 |

All Seniors: Mean = 47.338, N = 210
(which includes Sex Not Reported: N = 6, Mean = 42.000)

Table 60

Analysis of Variance F Values for Dickenson County Seniors by Four Levels of Siblings

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 1267.401 | 4 | 316.850 | 2.461 | 0.046 |
| Sex | 744.701 | 1 | 744.701 | 5.785 | 0.016 |
| Siblings | 414.613 | 3 | 138.204 | 1.074 | 0.362 |
| Interaction | 213.514 | 3 | 71.171 | 0.553 | 0.999 |
| Within | 25,229.742 | 196 | 128.723 | | |
| Total | 26,710.660 | 203 | 131.580 | | |

Table 61

Cell Means for Russell County Seniors by Sex by Siblings

| Siblings | Sex | | | | Main Effects | |
|---|---|---|---|---|---|---|
| | Male | | Female | | | |
| | # | Mean | # | Mean | # | Mean |
| No Siblings | 12 | 55.250 | 8 | 40.125 | 20 | 49.200 |
| One or Two Siblings | 54 | 51.315 | 70 | 46.529 | 124 | 48.613 |
| Three or Four Siblings | 44 | 49.500 | 44 | 45.455 | 88 | 47.478 |
| Five or More Siblings | 34 | 47.706 | 40 | 46.850 | 74 | 47.243 |
| Main Effects | 144 | 50.236 | 162 | 46.000 | 306 | 47.993 |

All Seniors: Mean = 47.9903, N = 309
(which includes Sex Not Reported: N = 3, Mean = 47.667, S.D. = 14.468)

Table 62

Analysis of Variance F Values for Russell County Seniors by Four Levels of Siblings

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 1522.619 | 4 | 380.655 | 2.396 | 0.050 |
| Sex | 1380.842 | 1 | 1380.842 | 8.693 | 0.004 |
| Siblings | 154.636 | 3 | 51.545 | 0.325 | 0.999 |
| Interaction | 788.918 | 3 | 262.972 | 1.656 | 0.175 |
| Within | 47,333.883 | 298 | 158.839 | | |
| Total | 49,645.422 | 305 | 162.772 | | |

The significance levels were main effects, .050; sex, .004; siblings, .999; and interaction, .175. Since the significance level for siblings exceeded the .05 level, hypothesis eighteen was accepted as tenable for Russell County seniors.

Tazewell County. Table 63 shows the number of subjects, mean scores, and standard deviations for senior males and females according to four levels of siblings. There were 250 males and 250 females.

Table 64 shows the analysis of variance F values which were main effects, 1.676; sex, 4.053; siblings, .814; and interaction, 1.314. Only sex was significant at the .05 level; therefore, hypothesis eighteen was accepted as tenable for Tazewell County seniors.

Entire population. Table 65 shows the number of subjects, mean scores, and standard deviations for all senior males and females according to four levels of siblings.

Table 66 shows the analysis of variance F values for all seniors in the population which were main effects, 5.271; sex, 14.395; siblings, 2.027; and interaction, .790. The significance levels were main effects, .001; sex, .001; siblings, .107; and interaction, .999. Since the significance level for siblings exceeded the .05 level, hypothesis eighteen was accepted as tenable for all seniors in the population of the study.

Table 63

Cell Means for Tazewell County Seniors by Sex by Siblings

| Siblings | Sex | | | | Main Effects | |
|---|---|---|---|---|---|---|
| | Male | | Female | | | |
| | # | Mean | # | Mean | # | Mean |
| No Siblings | 19 | 50.368 | 16 | 46.313 | 35 | 48.514 |
| One or Two Siblings | 110 | 52.536 | 97 | 49.598 | 207 | 51.159 |
| Three or Four Siblings | 75 | 48.787 | 79 | 49.620 | 154 | 49.214 |
| Five or More Siblings | 46 | 52.783 | 58 | 47.379 | 104 | 49.769 |
| Main Effects | 250 | 51.292 | 250 | 48.880 | 500 | 50.086 |

All Seniors: Mean = 50.115, N = 506
(which includes Sex Not Reported: N = 6, Mean = 52.500)

Table 64

Analysis of Variance F Values for Tazewell County Seniors by Four Levels of Siblings

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 1143.890 | 4 | 285.972 | 1.676 | 0.153 |
| Sex | 691.445 | 1 | 691.445 | 4.053 | 0.042 |
| Siblings | 416.672 | 3 | 138.891 | 0.814 | 0.999 |
| Interaction | 672.220 | 3 | 224.073 | 1.314 | 0.268 |
| Within | 83,928.688 | 492 | 170.587 | | |
| Total | 85,744.813 | 499 | 171.833 | | |

Table 65

Cell Means for All Seniors by Sex by Siblings

| Sibling | Male | | Female | | Main Effects | |
|---|---|---|---|---|---|---|
| | N | Mean | N | Mean | N | Mean |
| No Sibling | 48 | 52.5208 | 37 | 47.1081 | 85 | 50.1647 |
| One or Two Siblings | 252 | 51.9484 | 254 | 48.5197 | 506 | 50.2273 |
| Three or Four Siblings | 193 | 49.2901 | 198 | 47.4495 | 391 | 48.3580 |
| Five or More Siblings | 150 | 49.4133 | 186 | 47.7258 | 336 | 48.4792 |
| Main Effects | 643 | 50.6018 | 675 | 47.9096 | 1,318 | 49.2231 |

Table 66

Analysis of Variance F Values for All Seniors
by Number of Siblings by Sex

| Source of Variation | SS | df | MS | F | Significance Level |
|---|---|---|---|---|---|
| Main Effects | 3353.856 | 4 | 838.464 | 5.271 | .001 |
| Sex | 2289.736 | 1 | 2289.736 | 14.395 | .001 |
| Siblings | 967.039 | 3 | 322.346 | 2.027 | .107 |
| Interaction | 377.082 | 3 | 125.694 | 0.790 | .999 |
| Within | 208,375.375 | 1310 | 159.065 | | |
| Total | 212,106.313 | 1317 | 161.053 | | |

# Chapter 5

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## SUMMARY

The problem of this research was to analyze the attitudes of high school seniors toward four-year colleges and community colleges to see if there were significant differences according to (1) sex, (2) fathers' and mothers' educational levels, (3) fathers' and mothers' occupational levels, (4) teachers' attitudes, (5) post-high school plans, (6) number of siblings, and (7) county of residence.

The population for the study included 1,573 high school seniors and 232 teachers of high school seniors in the fifteen high schools of four counties, Buchanan, Dickenson, Russell, and Tazewell, which constituted Planning District Number 2 in Virginia, known as the Cumberland Plateau Planning District. Data were collected for 1,340 seniors and 232 teachers.

An attitudinal instrument was developed and validated to collect data for the testing of eighteen hypotheses. (See Appendix A for instrument and validation data.)

Analyses of the data were presented according to two broad categories: (1) biographical data, and (2) hypotheses testing.

# BIOGRAPHICAL DATA

## Educational Levels of Fathers and Mothers

The data showed that educational levels of fathers and mothers were low with 49.1 percent of mothers and 56.9 percent of fathers with less than a high school diploma. Only 18.6 percent of mothers and 21.1 percent of fathers had more than a high school diploma. In general, mothers had more education than fathers. Among the counties, Tazewell mothers and fathers had more education than mothers and fathers in the other three counties, and Buchanan mothers and fathers had less education than mothers and fathers in the other three counties.

When fathers and mothers were grouped according to three levels of education, "high level" (everything beyond a high school diploma), "medium level" (a high school diploma), and "low level" (everything below a high school diploma), slightly more than one-fifth of fathers and a little less than one-fifth of mothers were in the high level. There were considerably more mothers than fathers in the medium level, 28.1 percent to 18.6 percent; and more fathers than mothers, 57.4 percent to 49.3 percent, were in the low level. These data revealed that mothers had more education than fathers. This finding was consistent with data reported in the review of literature.

## Occupations of Fathers and Mothers

Grouping fathers and mothers by thirteen and fourteen occupational classifications respectively, indicated that 10.1 percent of fathers were unemployed and 61.5 percent of mothers were housewives. Over 50 percent of fathers in Buchanan and Dickenson were miners,

while only 38.2 percent of fathers were engaged in agriculture, forestry, and fisheries. The largest group of employed mothers was the 6.2 percent in professional and related services, which probably was due to public education.

When classified by three levels of occupations as (1) owners, (2) managers, and (3) laborers, 52 percent of all fathers and 23.4 percent of all mothers were laborers; 13.9 percent of all fathers and 4.8 percent of mothers were managers; and 16.4 percent of all fathers and 3.4 percent of all mothers were owners. There were 17.5 percent of fathers in the category "other," which included unemployed fathers and those not reported in the categories of owner, manager, or laborer. There were 62.3 percent of mothers in the category "other," which included housewife, unemployed, and mothers not reported in the categories of owner, manager, or laborer.

The thirteen classifications of fathers' occupations and the fourteen classifications of mothers' occupations were grouped by three levels: (1) high level, or white collar; (2) low level, or blue collar; and (3) unemployed for fathers and housewife for mothers. In the low level there were 70.2 percent of fathers and 13.2 percent of mothers. In the high level there were 19.7 percent of fathers and 20.7 percent of mothers. Tazewell County had more fathers and mothers in high level occupations than any of the other three counties. Tazewell also had more working mothers than any of the other three counties.

## Intended Occupations of Seniors

The largest group of seniors, 21.3 percent, planned to enter the professional and related services field, while 19.3 percent planned to enter mining. Business and repair services were selected by 10.7

percent; personal services, 8.8 percent; public administration, 7.1 percent; construction, 6.3 percent; and wholesale and retail trade, 5.1 percent. The field selected least often, entertainment and recreation services, was chosen by 2.6 percent of all seniors.

### Level of Education Seniors Expect to Achieve

A total of 585, or 43.7 percent, of all seniors planned to pursue only the high school diploma. Buchanan County seniors and Dickenson County seniors appeared to have lower educational aspirations than seniors in Russell and Tazewell. More Tazewell seniors planned to pursue college degrees than did seniors in the other three counties. There were 109 seniors, or 8.1 percent, who expected to achieve a graduate school degree.

### Levels of Education Seniors Report Should Be Achieved

Although only 285, or 21.3 percent, of seniors planned to pursue a college degree, 452, or 33.7 percent, reported that seniors should pursue a college degree. Only 207 seniors, or 15.4 percent, believed that a high school diploma would be adequate for tomorrow, while 585, or 43.7 percent, intended to pursue only a high school diploma. This indicated that seniors perceived that more education is needed than they intend to get.

### Post-High School Plans of Seniors

More seniors (39.4 percent) planned to get jobs upon graduation than planned to attend a four-year college (17.5 percent) and/or attend a two-year college (15.7 percent). In Buchanan, Dickenson, and Tazewell,

more seniors planned to attend four-year colleges than planned to attend community colleges. However, in Russell County, more seniors planned to attend community colleges than planned to attend four-year colleges. Over 10 percent of seniors apparently did not know what they would do after graduation.

### When Seniors Decided Post-High School Plans

A large group of seniors, 27.8 percent, reported that they had not yet decided what they would do after graduation. About 16.3 percent of seniors reported they decided before the eleventh grade, and the largest group, 41.7 percent, reported they decided while in their senior year. After grouping responses into two categories, it was evident that a relatively small number, 29.4 percent, decided before the twelfth grade, while the majority, 69.5 percent, decided after the eleventh grade. Buchanan and Dickenson County seniors appeared to take longer to decide than Russell or Tazewell County seniors.

### People Who Influenced Seniors' Educational Aspirations

The mother was chosen more often (27.7 percent) than the father (23.5 percent) as the person who most influenced seniors' educational aspirations. The evidence clearly indicated that family members are far more influential than school personnel. It was also clear that seniors perceived the teacher as having more influence on educational plans than principals or guidance counselors.

## HYPOTHESES

Hypotheses were stated in the null and subjected to statistical tests for significance at the .05 level.

Hypotheses One and Two

Hypothesis one: there is no significant difference between senior male attitudes toward community colleges and senior male attitudes toward four-year colleges.

Hypothesis two: there is no significant difference between senior female attitudes toward community colleges and senior female attitudes toward four-year colleges.

These two hypotheses could not be tested by the data collected.

Hypotheses Three, Four, Five, and Six

Hypothesis three: there is no significant difference between attitudes of senior males on measures of fathers' occupation.

Hypothesis four: there is no significant difference between attitudes of senior males on measures of mothers' occupation.

Hypothesis five: there is no significant difference between attitudes of senior females on measures of fathers' occupation.

Hypothesis six: there is no significant difference between attitudes of senior females on measures of mothers' occupation.

These hypotheses were subjected to an analysis of variance for subjects in each of the counties. The .05 level of significance was used to accept or reject a hypothesis as tenable or untenable.

When fathers and mothers were grouped according to levels of occupation, that is (1) high level, or white collar; (2) low level, or blue collar; (3) unemployed for fathers; and (4) housewife for mothers, hypotheses three, four, five, and six were accepted as tenable for Buchanan, Dickenson, Russell, and Tazewell Counties because the significance levels of the F values exceeded the .05 level.

There were no significant differences among seniors in any of the counties according to levels of occupation or for interaction of levels of occupation and sex. However, there were significant differences for sex only among all the counties' seniors except for Buchanan County seniors (included both grouping schemes for fathers and mothers) and for Tazewell County seniors when grouped by fathers' occupational levels of high level, low level, and unemployed.

Hypotheses Seven, Eight, Nine, and Ten

Hypothesis seven: there is no significant difference between attitudes of senior males on measures of fathers' education.

Hypothesis eight: there is no significant difference between attitudes of senior males on measures of mothers' education.

Hypothesis nine: there is no significant difference between attitudes of senior females on measures of fathers' education.

Hypothesis ten: there is no significant difference between attitudes of senior females on measures of mothers' education.

Mothers' and fathers' educational levels were grouped according to three levels: (1) high level (all levels above the high school diploma); (2) medium level (a high school diploma); and (3) low level (all levels below a high school diploma).

These hypotheses were tested for significance at the .05 level by an analysis of variance.

Since significance levels of the F values exceeded .05, hypotheses seven, eight, nine, and ten were accepted as tenable for Buchanan, Dickenson, Russell, and Tazewell seniors.

Hypotheses Eleven and Twelve

Hypothesis eleven: there is no significant difference between attitudes of senior males and senior females among the counties of the Cumberland Plateau Planning District.

Hypothesis twelve: there is no significant difference between attitudes of senior males and senior females on the social sub-scale.

These hypotheses were subjected to an analysis of variance and a t-test for all males and all females. Significance was set at the .05 level. The F value for analysis of variance showed significance for sex at .001, significance for counties at .012, and for main effects at .001. Interaction was not significant at the .05 level. On this basis, hypotheses eleven and twelve were rejected as not tenable.

The t values by county indicated there were significant differences for sex in Dickenson, Russell, Tazewell, and for total population, but not for Buchanan.

Hypothesis Thirteen

Hypothesis thirteen: there is no significant difference between attitudes of senior males and senior females on the economic sub-scale. This hypothesis could not be tested because the economic scale was rejected as a result of the validation process. It had a reliability coefficient of only .67.

Hypotheses Fourteen and Fifteen

Hypothesis fourteen: there is no significant difference between the attitudes of senior males and attitudes of their teachers.

Hypothesis fifteen: there is no significant difference between the attitudes of senior females and the attitudes of their teachers.

These hypotheses were subjected to t-tests for significance at the .05 level for each of the counties and for the entire population.

Hypotheses fourteen and fifteen were rejected as not tenable for Buchanan and Russell County seniors. Hypothesis fourteen was rejected as not tenable for Dickenson County, but hypothesis fifteen was accepted as tenable for Dickenson County. Hypotheses fourteen and fifteen were accepted as tenable for Tazewell seniors versus teachers. For the total population, hypotheses fourteen and fifteen were rejected as not tenable.

Hypothesis Sixteen

Hypothesis sixteen: there is no relationship between the "expected educational level to be attained" and the "stated amount of education that should be attained." The r value for each county was significant at the .05 level; therefore, hypothesis sixteen was rejected as not tenable for each of the counties and for the total population.

Hypothesis Seventeen

Hypothesis seventeen: there is no significant difference between the attitudes of seniors who plan to attend college and the attitudes of seniors who do not plan to attend college.

Seniors were grouped by two categories: (1) those who planned to attend a community college or a four-year college, and (2) those who had other post-high school plans. There was significance for main effects, sex, and plans, but not for interaction. Hypothesis seventeen was rejected as not tenable.

Hypothesis Eighteen

Hypothesis eighteen: there is no significant difference between the attitudes of senior males and senior females according to family

size as measured by the number of siblings.

This hypothesis was tested by an analysis of variance at the .05 level of significance.

The F value for each county exceeded the .05 level; therefore, hypothesis eighteen was accepted as tenable for each of the counties. The F value for the entire population exceeded the .05 level of significance; therefore, hypothesis eighteen was accepted as tenable for the entire population.

## CONCLUSIONS

Based on the data collected and analyzed for this study, several conclusions are stated as follows:

### Conclusion One

Educational levels of fathers and mothers were generally lower than state levels. Within the population of the study, mothers had more education than fathers. Among the counties, Tazewell fathers and mothers ranked highest, with Russell second, Dickenson, third, and Buchanan fourth.

### Conclusion Two

Mining was a major occupation with over one-half of Buchanan and Dickenson fathers and over one-third of Russell and Tazewell fathers reported as miners. The support industries of construction, transportation, communication, and other public utilities provided back-up jobs for the mining industry.

### Conclusion Three

Unemployment among fathers was higher than state or national levels.

Conclusion Four

Except for certain occupational groups such as personal services, professional services, and manufacturing, there were limited job opportunities for mothers. Almost two-thirds, 61.5 percent, were reported as housewives.

Conclusion Five

Seniors had relatively high aspirations for jobs, with one out of five expecting to enter the professional field. Since the area was primarily a one-industry area with coal and related service industries, speculation leads to the question, "Do professions such as teaching, banking, law, and medicine provide dreams for upward mobility from the mining industry?"

Conclusion Six

Almost one-half of all seniors expect to stop their education with the high school diploma. This might be related to the extremely low educational levels of fathers and mothers. About one out of five seniors expected to pursue college degrees. Seniors in this study could be described as having low educational aspirations.

Conclusion Seven

Seniors believed that more education should be achieved than they reported they intended to achieve. Students could be compromising the dilemma represented by undereducated parents and the slogan representing education, that "if you want a good job, get a good education."

Conclusion Eight

More seniors planned to get jobs upon graduation than planned to

attend college, but among the college bound, more seniors favored four-year colleges than community colleges.

Conclusion Nine

Post-high school plans generally were not decided until sometime during the senior year or later. Almost seven out of ten decided sometime after becoming seniors, while only three out of ten decided before the twelfth grade.

Conclusion Ten

Seniors' educational aspirations were influenced more by mothers than by fathers, and more by parents than by school personnel. In this study, the influence of guidance counselors and principals would be considered negligible, while teachers exert minimal influence.

Conclusion Eleven

Fathers' and mothers' educational levels did not bear significantly upon the attitudes of seniors in this study. This could be related to the homogeneity of the culture and the overwhelmingly low level of education of adults in the area.

Conclusion Twelve

Levels of occupation did not bear significantly upon the attitudes of seniors. This could be related to the nature of jobs in the area. In a sense, the area represents a one-industry economy with coal providing almost all the jobs either directly or indirectly. There could be a common thread running through most of the jobs in the area.

Conclusion Thirteen

There was a significant difference between the attitudes of

seniors who planned to attend college and seniors who did not plan to attend college. College bound seniors had higher mean scores on the attitude scale than non-college bound seniors.

Conclusion Fourteen

The size of family as measured by the number of siblings did not bear significantly upon seniors' attitudes.

## RECOMMENDATIONS

Recommendation One

Personnel representing community colleges or four-year colleges who wish to recruit in the Cumberland Plateau Planning District should communicate with parents and teachers. According to the results of this study, parents and teachers influence seniors' educational aspirations more than guidance counselors, principals, friends, or others. Communications should be concerned primarily with those students who have difficulty deciding whether to attend college. These students most likely have parents who are under-educated. Due to their limited educational experiences, parents are not in a position to help or encourage their children with complex decisions about higher education. Appropriate communications could enhance recruitment efforts in this area.

Recommendation Two

Guidance counselors should develop a positive action program to identify academically capable students from lower economic brackets who might not be able to meet college expenses. Cooperation with teachers should pay handsome dividends since the literature shows that these students derive inspiration for higher education from school personnel.

For academically talented girls, the literature revealed that adequate financial resources were crucial in deciding whether to attend. Although the study did not attack this problem specifically, it might be stated that many economically poor students who are academically talented do not attempt college because they believe they cannot afford it. If the guidance counselor can help arrange financial affairs so that college attendance is possible, the literature suggests that these students have "staying power."

It appears that bright students from upper socio-economic levels get most of the support they need, psychological and fiscal, from their families and, therefore, depend less on guidance counselors. To many counselors it might appear that this is not true because these students "come" to them for help in arranging exams, completing applications, and other tasks; while students from lower socio-economic brackets seldom come for help. The essence of the situation, however, is that the former come for perfunctory tasks, while the latter need what the guidance counselor can do best, counseling.

Recommendation Three

According to this study, seniors' attitudes were significantly different according to the factor of sex. It is recommended that a study be conducted to determine why attitudes are significantly different. An investigation to determine whether attitudes toward education are significantly related to attitudes of mothers and fathers might be enlightening.

Recommendation Four

It is recommended that a study be conducted to determine if

there is a positive relationship between the type of college selected and vocational attitudes. Studies might also be done to investigate the other attitude clusters described in the framework for the problem of this study. If economic attitudes are studied, it is recommended that a different approach from that used in this study be tried. This investigator believes that economic attitudes toward colleges tend to be bi-polar. Students might believe, for example, that on the issue of the economic value of attending college there are essentially only two responses: yes, it is worth it; or no, it is not worth it. There does not seem to be a continuum of responses available as there is for social issues.

Recommendation Five

College personnel, public school personnel, and others interested in public schooling should be more concerned about the time frame when seniors decide their post-high school plans. It appears that far too many seniors are undecided late in their senior year and that a relative few have decided before the senior year. Perhaps more emphasis should be placed upon career education and decision-making exercises in public schools.

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# APPENDIXES

# APPENDIX A

# DEVELOPMENT OF INSTRUMENT

# INTRODUCTION

This questionnaire is an attempt to get your opinion on some important issues. We are interested only in YOUR agreement or disagreement with the following statements. There are no "right" or "wrong" answers. The best answer is your HONEST, FRANK opinion. All we ask is that you:

a. Read each statement carefully and mark it according to your first reaction. It is not necessary to take a lot of time for any one question.

b. Answer every question.

c. Give your personal point of view. Do not talk about the questions with anyone until you have finished.

d. Be as sincere, accurate, and complete as possible.

For every item, please check your personal reaction to the statement according to the following code:

Strongly Disagree  Disagree  Undecided  Agree  Strongly Agree

For every item please check (✓) your personal reaction to the statement according to the following code:

SD = Strongly Disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly Agree

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 1. Everyday life is more difficult at community colleges than at four-year colleges. | | | | | |
| 2. It takes greater effort to get along socially at four-year colleges than at community colleges. | | | | | |
| 3. I am more afraid of four-year colleges than community colleges. | | | | | |
| 4. It is more desirable to attend four-year colleges rather than community colleges. | | | | | |
| 5. The social life I want is more available at community colleges than at four-year colleges. | | | | | |
| 6. The social climate at four-year colleges is more acceptable than the social climate at community colleges. | | | | | |
| 7. There is more social approval for four-year college students than for community college students. | | | | | |
| 8. Campus life at community colleges is "dullsville" compared to life at four-year colleges. | | | | | |
| 9. It is desirable to attend the same community college as friends do rather than a four-year college. | | | | | |
| 10. My friends are more likely to attend community colleges than four-year colleges. | | | | | |
| 11. I am confident I can get along better at four-year colleges than at community colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 12. It is more desirable to be a community college student than a four-year college student. | | | | | |
| 13. Students who know little about four-year colleges should attend community colleges. | | | | | |
| 14. Four-year colleges are more attractive than community colleges. | | | | | |
| 15. Institutional control over student behavior is needed more at four-year colleges than at community colleges. | | | | | |
| 16. It is easier to violate rules at four-year colleges than at community colleges. | | | | | |
| 17. Community colleges are more conservative than four-year colleges. | | | | | |
| 18. My ideas about college life are more clear toward four-year colleges than toward community colleges. | | | | | |
| 19. Students at four-year colleges worry more than students at community colleges. | | | | | |
| 20. Students at community colleges receive more respect than students at four-year colleges. | | | | | |
| 21. Students at four-year colleges are more open-minded than students at community colleges. | | | | | |
| 22. It is easier to keep high-school friends by attending community colleges rather than four-year colleges. | | | | | |
| 23. Four-year colleges provide more ideas for social improvement than community colleges. | | | | | |
| 24. High school seniors are more enthusiastic about four-year colleges than community colleges. | | | | | |
| 25. Community colleges are more interesting than four-year colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 26. People are happier with four-year colleges than with community colleges. | | | | | |
| 27. Living in a four-year college dorm is a better experience than attending a community college and living at home. | | | | | |
| 28. Students at four-year colleges are upset and nervous more often than students at community colleges. | | | | | |
| 29. There is more immoral behavior at four-year colleges than at community colleges. | | | | | |
| 30. Community colleges are all right if you cannot be admitted to four-year colleges. | | | | | |
| 31. Students at community colleges form closer friendships than students at four-year colleges. | | | | | |
| 32. Community colleges are more fascinating than four-year colleges. | | | | | |
| 33. Making friends is more difficult at four-year colleges than at community colleges. | | | | | |
| 34. I would enjoy myself more at a four-year college than at a community college. | | | | | |
| 35. Four-year colleges have more merits than community colleges. | | | | | |
| 36. I would be resented more at four-year colleges than at community colleges. | | | | | |
| 37. Four-year college students suffer more conflicts between home life and college life than community college students. | | | | | |
| 38. There are more advantages at four-year colleges than at community colleges. | | | | | |
| 39. Social life is better at four-year colleges than at community colleges. | | | | | |
| 40. Being part of the crowd is easier at community colleges than at four-year colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 41. My friends like community colleges more than four-year colleges. | | | | | |
| 42. There is greater opportunity to be sociable at four-year colleges than at community colleges. | | | | | |
| 43. High school seniors are more afraid of four-year colleges than community colleges. | | | | | |
| 44. Social events at four-year colleges rate more highly than social events at community colleges. | | | | | |
| 45. I would be taking a bigger chance with my happiness at a community college than at a four-year college. | | | | | |
| 46. Four-year colleges are more satisfying than community colleges. | | | | | |
| 47. Students with adjustment problems should select community colleges rather than four-year colleges. | | | | | |
| 48. Group spirit at four-year colleges is superior to group spirit at community colleges. | | | | | |
| 49. Students should keep high school friends by commuting to community colleges rather than living at four-year colleges. | | | | | |
| 50. Pressure to do what other students do is greater at four-year colleges than at community colleges. | | | | | |
| 51. More people approve of four-year colleges than community colleges. | | | | | |
| 52. Attending four-year colleges is more prestigious than attending community colleges. | | | | | |
| 53. It is easier to make friends at community colleges than at four-year colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 54. There are more students from all walks of life at four-year colleges than at community colleges. | | | | | |
| 55. Getting together for card games, movies, and parties is more fun at four-year colleges than at community colleges. | | | | | |
| 56. Students' talents are better developed by four-year colleges than by community colleges. | | | | | |
| 57. Students at four-year colleges are more satisfied than students at community colleges. | | | | | |
| 58. It is more desirable to mix and mingle with the crowd at four-year colleges than at community colleges. | | | | | |
| 59. Students receive better treatment at four-year colleges than at community colleges. | | | | | |
| 60. There is more doubt about social life at community colleges than at four-year colleges. | | | | | |
| 61. Four-year colleges are more frightening than community colleges. | | | | | |
| 62. I would rather attend a four-year college than a community college. | | | | | |
| 63. My friends are better suited to community colleges than to four-year colleges. | | | | | |
| 64. There are more misfits at four-year colleges than at community colleges. | | | | | |
| 65. Four-year colleges offer more freedom than community colleges. | | | | | |
| 66. Upperclassmen accept new students more quickly at community colleges than they do at four-year colleges. | | | | | |
| 67. Students are more radical at four-year colleges than at community colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 68. Students at community colleges are happier than students at four-year colleges. | | | | | |
| 69. Students at community colleges are more contented than students at four-year colleges. | | | | | |
| 70. There is greater respect for community colleges than for four-year colleges. | | | | | |
| 71. Students receive more individual attention at community colleges than at four-year colleges. | | | | | |
| 72. Four-year college students have more self-confidence than community college students | | | | | |
| 73. The best social life is experienced at four-year colleges instead of community colleges. | | | | | |
| 74. It is important that a student break away from home life by attending four-year colleges rather than community colleges. | | | | | |
| 75. Four-year college students have a more "care less" attitude toward others than community college students. | | | | | |
| 76. Students are more willing to try community colleges than four-year colleges. | | | | | |
| 77. Opportunity for a good "work-play" relationship is better at community colleges than at four-year colleges. | | | | | |
| 78. There are more students like me at four-year colleges than at community colleges. | | | | | |
| 79. Students in four-year colleges are more snobbish than students in community colleges. | | | | | |
| 80. Attending four-year colleges brings greater respect to students than community colleges. | | | | | |
| 81. There are more social advantages at four-year colleges than community colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 82. Adjusting to a community college campus is easier than adjusting to a four-year college campus. | | | | | |
| 83. Participating in campus social life is easier at four-year colleges than at community colleges. | | | | | |
| 84. Attending community colleges makes more sense than attending four-year colleges. | | | | | |
| 85. There is greater kinship among community college students than among four-year college students. | | | | | |
| 86. Four-year colleges are better than community colleges. | | | | | |
| 87. Students learn more about people by attending four-year colleges than by attending community colleges. | | | | | |
| 88. It is more fun to attend community colleges than four-year colleges. | | | | | |
| 89. The quality of social life is better at community colleges than at four-year colleges. | | | | | |
| 90. Social life is more desirable at four-year colleges than at community colleges. | | | | | |
| 91. I do not care how four-year colleges rate, community colleges are better for me. | | | | | |

For every item please check (✓) your personal reaction to the statement according to the following code:

SD = Strongly Disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly Agree

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 1. Students are more likely to spend too much money at four-year colleges than at community colleges. | | | | | |
| 2. Students with economic problems should attend community colleges rather than four-year colleges. | | | | | |
| 3. Students should earn more money with four-year college degrees than with community college degrees. | | | | | |
| 4. For money spent, a community college is a better deal than a four-year college. | | | | | |
| 5. It is more difficult to refrain from spending money at community colleges than at four-year colleges. | | | | | |
| 6. There is not any doubt that four-year college degrees are worth more than community college degrees. | | | | | |
| 7. Living costs are more unreasonable at four-year colleges than at community colleges. | | | | | |
| 8. Four-year college benefits do not pay as well in relation to cost as community college benefits pay. | | | | | |
| 9. In the long run, more money is saved by attending four-year colleges rather than community colleges. | | | | | |
| 10. Money spent on four-year college degrees is a better investment than money spent on community college degrees. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 11. Save money by attending four-year colleges rather than community colleges. | | | | | |
| 12. The economic benefits of a four-year college education are not really any greater than those of a community college. | | | | | |
| 13. The difference between the cost of community colleges and four-year colleges is of no practical consequence to students. | | | | | |
| 14. It makes more sense economically to attend community colleges than four-year colleges. | | | | | |
| 15. Four-year colleges are more economical for students than community colleges. | | | | | |
| 16. If money were no object, students would select four-year colleges rather than community colleges. | | | | | |
| 17. Higher costs are necessary at four-year colleges to keep some students in community colleges. | | | | | |
| 18. If money were available, students should choose four-year colleges instead of community colleges. | | | | | |
| 19. More money is wasted on a four-year college experience than on a community college experience. | | | | | |
| 20. The high cost of four-year colleges forces more students to select community colleges. | | | | | |
| 21. Students should save money by commuting to community colleges rather than living at four-year colleges. | | | | | |
| 22. Poor students should attend community colleges rather than four-year colleges. | | | | | |
| 23. Students with little money should select community colleges over four-year colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 24. The lack of family money should not prevent a student from selecting a four-year college over a community college. | | | | | |
| 25. It takes more money to participate in campus social life at four-year colleges than at community colleges. | | | | | |
| 26. Families should sacrifice more so that students can attend four-year colleges rather than community colleges. | | | | | |
| 27. You get more dollar value from attending community colleges than four-year colleges. | | | | | |
| 28. The benefits of four-year college degrees are exaggerated out of proportion to the benefits of community college degrees. | | | | | |
| 29. Four-year colleges cost more because the quality of instruction there is better than at community colleges. | | | | | |
| 30. If costs were equal, more students would choose four-year colleges rather than community colleges. | | | | | |
| 31. Education is a better bargain at community colleges than at four-year colleges. | | | | | |
| 32. If they were less expensive, four-year colleges would be as desirable as community colleges. | | | | | |
| 33. Students have a better chance to work part-time at community colleges than at four-year colleges. | | | | | |
| 34. Money saved by attending community colleges is not enough to switch from attending four-year colleges. | | | | | |
| 35. Community college costs are more in keeping with my budget than are the costs of a four-year college. | | | | | |
| 36. Students with the same economic background as mine attend community colleges rather than four-year colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 37. Social life costs more at four-year colleges than at community colleges. | | | | | |
| 38. Attending four-year colleges is a useless way to spend money when students could easily attend community colleges. | | | | | |
| 39. Most students can afford to attend four-year colleges rather than less expensive community colleges. | | | | | |
| 40. The economic value of four-year college degrees is more debatable than the value of community college degrees. | | | | | |
| 41. A year at a four-year college should cost more than a year at a community college. | | | | | |
| 42. You cannot really compare four-year colleges with community colleges on an economic basis. | | | | | |
| 43. Students receive more information about controlling costs at four-year colleges than at community colleges. | | | | | |
| 44. Four-year colleges cost more because you get more education there than at community colleges. | | | | | |
| 45. Students with little money should choose community colleges rather than four-year colleges. | | | | | |
| 46. Keeping up with the crowd costs more at four-year colleges than at community colleges. | | | | | |
| 47. It is harder to justify the cost of a four-year college education than a community college education. | | | | | |
| 48. A four-year college is a better way to spend money than a community college. | | | | | |
| 49. Unlike community colleges, the cost of four-year colleges cannot be measured in terms of dollars. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 50. Students waste more money at community colleges than at four-year colleges. | | | | | |
| 51. Students at four-year colleges come from wealthier families than students at community colleges. | | | | | |
| 52. Costs are lower at community colleges than four-year colleges. | | | | | |
| 53. Considering only cost, students should select community colleges rather than four-year colleges. | | | | | |
| 54. If borrowing money made the difference between attending a four-year college and a community college, you should choose community colleges rather than four-year colleges. | | | | | |
| 55. If educational benefits were the same, more students would choose community colleges rather than four-year colleges. | | | | | |
| 56. Students at community colleges are more concerned about money than students at four-year colleges. | | | | | |
| 57. More people think that four-year college costs too much than think that community college costs too much. | | | | | |
| 58. Students have more financial problems at four-year colleges than at community colleges. | | | | | |
| 59. In the long run more money is wasted by attending four-year colleges rather than community colleges. | | | | | |
| 60. Four-year college degrees are valuable but the worth of community college degrees is unknown. | | | | | |
| 61. Four-year college graduates should get better jobs than community college graduates. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 62. Attending four-year colleges is a foolish way to spend money when community colleges are available. | | | | | |
| 63. Community colleges have more hidden costs than four-year colleges. | | | | | |
| 64. My friends will attend community colleges because they cannot afford four-year colleges. | | | | | |

Scores and Ranks of High and Low Groups
for Field Test of Social Scale

| High Group | | Low Group | |
|---|---|---|---|
| Score | Rank | Score | Rank |
| 235 | 1 | 117 | 1 |
| 230 | 2 | 120 | 2 |
| 229 | 3 | 124 | 3 |
| 226 | 4 | 125 | 4 |
| 225 | 5 | 126 | 5 |
| 225 | 6 | 129 | 6 |
| 221 | 7 | 132 | 7 |
| 215 | 8 | 133 | 8 |
| 215 | 9 | 138 | 9 |
| 214 | 10 | 139 | 10 |
| 213 | 11 | 139 | 11 |
| 210 | 12 | 140 | 12 |
| 209 | 13 | 141 | 13 |
| 209 | 14 | 142 | 14 |
| 209 | 15 | 142 | 15 |
| 208 | 16 | 145 | 16 |
| 207 | 17 | 147 | 17 |
| 206 | 18 | 150 | 18 |
| 206 | 19 | 150 | 19 |
| 206 | 20 | 151 | 20 |
| 205 | 21 | 151 | 21 |
| 204 | 22 | 153 | 22 |
| 201 | 23 | 154 | 23 |
| 201 | 24 | 160 | 24 |
| 200 | 25 | 160 | 25 |
| 200 | 26 | 162 | 26 |
| 199 | 27 | 162 | 27 |
| 199 | 28 | 163 | 28 |
| 199 | 29 | 163 | 29 |
| 199 | 30 | 163 | 30 |
| 199 | 31 | 164 | 31 |
| 199 | 32 | 164 | 32 |
| 198 | 33 | 165 | 33 |
| 198 | 34 | 165 | 34 |
| 196 | 35 | 166 | 35 |

Frequency Distribution for Thirty-Five Seniors in High Group from Field Test for Social Scale

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 1 | 6 | 20 | 3 | 6 | 0 | 1.2571 |
| 2 | 1 | 6 | 3 | 23 | 2 | 2.5429 |
| 3 | 5 | 9 | 3 | 14 | 4 | 2.0857 |
| 4 | 1 | 11 | 3 | 12 | 8 | 2.4286 |
| 5 | 9 | 6 | 6 | 12 | 2 | 1.7714 |
| 6 | 3 | 8 | 7 | 12 | 5 | 2.2286 |
| 7 | 1 | 5 | 9 | 17 | 3 | 2.4571 |
| 8 | 2 | 6 | 9 | 14 | 4 | 2.3429 |
| 9 | 5 | 7 | 4 | 16 | 3 | 2.1429 |
| 10 | 4 | 5 | 5 | 18 | 3 | 2.3143 |
| 11 | 7 | 9 | 11 | 8 | 0 | 1.5714 |
| 12 | 8 | 9 | 5 | 11 | 2 | 1.7143 |
| 13 | 3 | 12 | 11 | 8 | 1 | 1.7714 |
| 14 | 1 | 5 | 5 | 19 | 5 | 2.6286 |
| 15 | 0 | 3 | 7 | 20 | 5 | 2.7714 |
| 16 | 0 | 7 | 14 | 10 | 4 | 2.3143 |
| 17 | 2 | 6 | 8 | 15 | 3 | 2.3235 |
| 18 | 0 | 10 | 7 | 13 | 5 | 2.3714 |
| 19 | 1 | 5 | 6 | 18 | 5 | 2.6000 |
| 20 | 2 | 20 | 9 | 4 | 0 | 1.4286 |
| 21 | 1 | 6 | 18 | 8 | 2 | 2.1143 |
| 22 | 1 | 3 | 4 | 22 | 5 | 2.7714 |
| 23 | 1 | 0 | 7 | 22 | 5 | 2.8571 |
| 24 | 2 | 7 | 5 | 13 | 8 | 2.5143 |
| 25 | 8 | 12 | 5 | 9 | 0 | 1.4412 |
| 26 | 0 | 10 | 17 | 8 | 0 | 1.9429 |
| 27 | 1 | 5 | 3 | 15 | 11 | 2.8571 |
| 28 | 0 | 7 | 7 | 19 | 2 | 2.4571 |
| 29 | 0 | 7 | 5 | 17 | 6 | 2.6286 |
| 30 | 0 | 6 | 1 | 23 | 5 | 2.7714 |
| 31 | 5 | 12 | 5 | 10 | 3 | 1.8286 |
| 32 | 6 | 15 | 10 | 3 | 0 | 1.2941 |
| 33 | 2 | 12 | 9 | 12 | 0 | 1.8857 |
| 34 | 1 | 10 | 1 | 13 | 10 | 2.6000 |
| 35 | 0 | 0 | 8 | 21 | 6 | 2.9429 |
| 36 | 1 | 15 | 8 | 9 | 2 | 1.8857 |
| 37 | 3 | 6 | 4 | 20 | 2 | 2.3429 |
| 38 | 0 | 1 | 6 | 21 | 7 | 2.9714 |
| 39 | 2 | 6 | 5 | 12 | 10 | 2.6286 |
| 40 | 1 | 5 | 9 | 18 | 2 | 2.4286 |
| 41 | 5 | 6 | 4 | 18 | 2 | 2.1714 |

Frequency Distribution for Thirty-Five Seniors in High Group from Field Test for Social Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 42 | 0 | 6 | 10 | 13 | 6 | 2.5429 |
| 43 | 2 | 5 | 4 | 18 | 6 | 2.6000 |
| 44 | 0 | 0 | 3 | 20 | 11 | 3.3235 |
| 45 | 2 | 13 | 10 | 7 | 3 | 1.8857 |
| 46 | 2 | 9 | 8 | 12 | 5 | 2.3143 |
| 47 | 0 | 6 | 2 | 22 | 4 | 2.7059 |
| 48 | 0 | 4 | 9 | 12 | 10 | 2.8000 |
| 49 | 9 | 12 | 5 | 6 | 3 | 1.4857 |
| 50 | 2 | 7 | 8 | 15 | 3 | 2.2857 |
| 51 | 1 | 4 | 5 | 20 | 5 | 2.6857 |
| 52 | 0 | 3 | 4 | 22 | 6 | 2.8857 |
| 53 | 1 | 12 | 4 | 15 | 2 | 2.1471 |
| 54 | 1 | 2 | 0 | 20 | 12 | 3.1429 |
| 55 | 3 | 7 | 11 | 11 | 3 | 2.1143 |
| 56 | 0 | 3 | 9 | 18 | 5 | 2.7143 |
| 57 | 0 | 6 | 16 | 11 | 2 | 2.2571 |
| 58 | 1 | 4 | 12 | 14 | 4 | 2.4571 |
| 59 | 1 | 14 | 15 | 4 | 1 | 1.7143 |
| 60 | 0 | 8 | 12 | 11 | 4 | 2.3143 |
| 61 | 0 | 8 | 0 | 22 | 5 | 2.6857 |
| 62 | 5 | 9 | 2 | 11 | 8 | 2.2286 |
| 63 | 3 | 11 | 7 | 13 | 1 | 1.9429 |
| 64 | 2 | 10 | 7 | 13 | 3 | 2.1429 |
| 65 | 0 | 10 | 8 | 11 | 6 | 2.3714 |
| 66 | 0 | 6 | 10 | 17 | 2 | 2.4286 |
| 67 | 1 | 2 | 11 | 18 | 3 | 2.5714 |
| 68 | 2 | 10 | 11 | 10 | 2 | 2.0000 |
| 69 | 2 | 9 | 10 | 14 | 0 | 2.0286 |
| 70 | 3 | 22 | 5 | 5 | 0 | 1.3429 |
| 71 | 0 | 4 | 4 | 25 | 2 | 2.7143 |
| 72 | 0 | 10 | 5 | 19 | 1 | 2.3143 |
| 73 | 0 | 2 | 7 | 19 | 7 | 2.8857 |
| 74 | 0 | 9 | 5 | 12 | 9 | 2.6000 |
| 75 | 1 | 12 | 8 | 13 | 1 | 2.0286 |
| 76 | 1 | 7 | 4 | 19 | 4 | 2.5143 |
| 77 | 2 | 6 | 5 | 17 | 4 | 2.4412 |
| 78 | 2 | 12 | 9 | 7 | 5 | 2.0286 |
| 79 | 1 | 7 | 12 | 13 | 2 | 2.2286 |
| 80 | 0 | 5 | 9 | 17 | 4 | 2.5714 |
| 81 | 0 | 1 | 5 | 23 | 6 | 2.9714 |
| 82 | 2 | 2 | 1 | 26 | 4 | 2.8000 |

Frequency Distribution for Thirty-Five Seniors in High Group from Field Test for Social Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 83 | 0 | 13 | 8 | 9 | 4 | 2.1177 |
| 84 | 5 | 14 | 9 | 7 | 0 | 1.5143 |
| 85 | 1 | 16 | 5 | 13 | 0 | 1.8571 |
| 86 | 2 | 4 | 14 | 11 | 4 | 2.3143 |
| 87 | 2 | 1 | 3 | 20 | 8 | 2.8286 |
| 88 | 3 | 15 | 11 | 5 | 1 | 1.6000 |
| 89 | 5 | 14 | 8 | 8 | 0 | 1.5429 |
| 90 | 0 | 3 | 7 | 19 | 6 | 3.0000 |
| 91 | 5 | 12 | 8 | 6 | 4 | 1.7714 |

Frequency Distribution for Thirty-Five Seniors in Low Group from Field Test for Social Scale

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 1 | 4 | 25 | 4 | 2 | 0 | 1.1143 |
| 2 | 2 | 20 | 6 | 6 | 1 | 1.5429 |
| 3 | 4 | 10 | 5 | 14 | 2 | 2.000 |
| 4 | 7 | 17 | 5 | 6 | 0 | 1.2857 |
| 5 | 3 | 9 | 7 | 14 | 2 | 2.0857 |
| 6 | 2 | 18 | 8 | 7 | 0 | 1.5714 |
| 7 | 2 | 17 | 5 | 10 | 0 | 1.6765 |
| 8 | 6 | 18 | 9 | 2 | 0 | 1.2000 |
| 9 | 5 | 16 | 2 | 12 | 0 | 1.6000 |
| 10 | 1 | 9 | 6 | 16 | 3 | 2.3143 |
| 11 | 3 | 21 | 6 | 4 | 1 | 1.4000 |
| 12 | 2 | 16 | 4 | 12 | 0 | 1.7647 |
| 13 | 5 | 22 | 4 | 3 | 1 | 1.2286 |
| 14 | 6 | 16 | 6 | 7 | 0 | 1.4000 |
| 15 | 3 | 12 | 10 | 8 | 2 | 1.8286 |
| 16 | 3 | 22 | 8 | 2 | 0 | 1.2571 |
| 17 | 2 | 7 | 13 | 12 | 0 | 2.0294 |
| 18 | 1 | 18 | 10 | 6 | 0 | 1.6000 |
| 19 | 3 | 16 | 5 | 10 | 1 | 1.7143 |
| 20 | 6 | 23 | 5 | 1 | 0 | 1.0286 |
| 21 | 8 | 19 | 6 | 2 | 0 | 1.0571 |
| 22 | 3 | 9 | 6 | 16 | 1 | 2.0857 |
| 23 | 2 | 17 | 8 | 8 | 0 | 1.6286 |
| 24 | 3 | 15 | 5 | 12 | 0 | 1.7429 |
| 25 | 0 | 16 | 9 | 9 | 1 | 1.8571 |
| 26 | 3 | 22 | 10 | 0 | 0 | 1.2000 |
| 27 | 5 | 8 | 3 | 15 | 4 | 2.1429 |
| 28 | 7 | 13 | 7 | 6 | 2 | 1.5143 |
| 29 | 4 | 20 | 7 | 4 | 0 | 1.3143 |
| 30 | 6 | 5 | 7 | 14 | 3 | 2.0857 |
| 31 | 6 | 20 | 4 | 5 | 0 | 1.2286 |
| 32 | 2 | 18 | 12 | 3 | 0 | 1.4571 |
| 33 | 6 | 19 | 6 | 3 | 1 | 1.2571 |
| 34 | 6 | 17 | 8 | 4 | 0 | 1.2857 |
| 35 | 0 | 9 | 12 | 14 | 0 | 2.1429 |
| 36 | 5 | 22 | 5 | 2 | 0 | 1.1177 |
| 37 | 0 | 12 | 14 | 9 | 0 | 1.9143 |
| 38 | 2 | 14 | 6 | 13 | 0 | 1.8571 |
| 39 | 3 | 21 | 8 | 2 | 1 | 1.3429 |
| 40 | 1 | 15 | 8 | 9 | 1 | 1.8235 |
| 41 | 0 | 6 | 11 | 13 | 5 | 2.4857 |

Frequency Distribution for Thirty-Five Seniors in Low Group from Field Test for Social Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 42 | 0 | 24 | 7 | 4 | 0 | 1.4286 |
| 43 | 1 | 13 | 5 | 13 | 2 | 2.0588 |
| 44 | 1 | 12 | 6 | 15 | 1 | 2.0857 |
| 45 | 7 | 19 | 7 | 2 | 0 | 1.1143 |
| 46 | 3 | 23 | 5 | 4 | 0 | 1.2857 |
| 47 | 3 | 6 | 6 | 17 | 3 | 2.3143 |
| 48 | 2 | 13 | 9 | 9 | 2 | 1.8857 |
| 49 | 5 | 24 | 4 | 1 | 1 | 1.1143 |
| 50 | 1 | 13 | 10 | 9 | 2 | 1.9429 |
| 51 | 2 | 15 | 5 | 12 | 1 | 1.8571 |
| 52 | 0 | 9 | 9 | 15 | 2 | 2.2857 |
| 53 | 3 | 19 | 5 | 8 | 0 | 1.5143 |
| 54 | 2 | 12 | 3 | 17 | 1 | 2.0857 |
| 55 | 5 | 24 | 4 | 1 | 1 | 1.1143 |
| 56 | 5 | 19 | 6 | 5 | 0 | 1.3143 |
| 57 | 2 | 30 | 3 | 0 | 0 | 1.0286 |
| 58 | 5 | 26 | 2 | 2 | 0 | 1.0286 |
| 59 | 8 | 24 | 2 | 1 | 0 | 0.8857 |
| 60 | 3 | 20 | 8 | 4 | 0 | 1.3714 |
| 61 | 1 | 12 | 5 | 16 | 0 | 2.0588 |
| 62 | 4 | 17 | 8 | 6 | 0 | 1.4571 |
| 63 | 1 | 10 | 12 | 9 | 3 | 2.0857 |
| 64 | 2 | 18 | 11 | 4 | 0 | 1.4857 |
| 65 | 4 | 20 | 6 | 5 | 0 | 1.3429 |
| 66 | 1 | 6 | 8 | 19 | 1 | 1.0000 |
| 67 | 0 | 15 | 11 | 9 | 0 | 1.8286 |
| 68 | 3 | 21 | 7 | 3 | 1 | 1.3714 |
| 69 | 2 | 20 | 9 | 4 | 0 | 1.4286 |
| 70 | 2 | 21 | 8 | 4 | 0 | 1.4000 |
| 71 | 1 | 8 | 9 | 15 | 2 | 2.2571 |
| 72 | 0 | 25 | 6 | 4 | 0 | 1.4000 |
| 73 | 0 | 24 | 6 | 5 | 0 | 1.4571 |
| 74 | 1 | 18 | 5 | 9 | 2 | 1.8000 |
| 75 | 6 | 14 | 7 | 8 | 0 | 1.4857 |
| 76 | 0 | 6 | 6 | 18 | 5 | 2.6286 |
| 77 | 1 | 14 | 9 | 11 | 0 | 1.8571 |
| 78 | 4 | 16 | 13 | 2 | 0 | 1.3714 |
| 79 | 3 | 15 | 7 | 9 | 1 | 1.7143 |
| 80 | 2 | 18 | 6 | 9 | 0 | 1.6286 |
| 81 | 0 | 21 | 8 | 5 | 1 | 1.6000 |

Frequency Distribution for Thirty-Five Seniors in Low Group from Field Test for Social Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 82 | 0 | 9 | 4 | 22 | 0 | 2.3714 |
| 83 | 0 | 27 | 4 | 4 | 0 | 1.3429 |
| 84 | 4 | 19 | 9 | 4 | 0 | 1.3714 |
| 85 | 0 | 17 | 7 | 11 | 0 | 1.8286 |
| 86 | 9 | 17 | 6 | 2 | 1 | 1.1143 |
| 87 | 2 | 21 | 9 | 2 | 0 | 1.2857 |
| 88 | 0 | 14 | 14 | 7 | 0 | 1.8000 |
| 89 | 2 | 17 | 11 | 5 | 0 | 1.5429 |
| 90 | 2 | 22 | 8 | 2 | 1 | 1.3714 |
| 91 | 1 | 13 | 10 | 7 | 4 | 2.0000 |

Item Analysis
Differences of Means
Social Scale

| Rank | High Group (N = 35) | Low Group (N = 35) | Difference | Statement Number |
|---|---|---|---|---|
| 1 | 3.0000 | 1.3714 | 1.6286 | 90 |
| 2 | 2.8286 | 1.2857 | 1.5429 | 87 |
| 3 | 2.8857 | 1.4571 | 1.4286 | 73 |
| 4 | 2.4286 | 1.0000 | 1.4286 | 66 |
| 5 | 2.4571 | 1.0286 | 1.4285 | 58 |
| 6 | 2.7143 | 1.3143 | 1.4000 | 56 |
| 7 | 2.9714 | 1.6000 | 1.3714 | 81 |
| 8 | 2.6000 | 1.2857 | 1.3143 | 34 |
| 9 | 2.6286 | 1.3143 | 1.3143 | 29 |
| 10 | 2.6286 | 1.3429 | 1.2857 | 39 |
| 11 | 3.3235 | 2.0857 | 1.2378 | 44 |
| 12 | 2.6286 | 1.4000 | 1.2286 | 14 |
| 13 | 2.8571 | 1.6286 | 1.2285 | 23 |
| 14 | 2.2571 | 1.0286 | 1.2285 | 57 |
| 15 | 2.3143 | 1.1143 | 1.2000 | 86 |
| 16 | 2.4286 | 1.2857 | 1.1429 | 4 |
| 17 | 2.3429 | 1.2000 | 1.1429 | 8 |
| 18 | 2.5429 | 1.4286 | 1.1143 | 42 |
| 19 | 2.9714 | 1.8571 | 1.1143 | 38 |
| 20 | 2.3143 | 1.2571 | 1.0572 | 16 |
| 21 | 2.1143 | 1.0571 | 1.0572 | 21 |
| 22 | 3.1429 | 2.0857 | 1.0572 | 54 |
| 23 | 2.3143 | 1.2857 | 1.0286 | 46 |
| 24 | 2.3714 | 1.3429 | 1.0285 | 65 |
| 25 | 2.5429 | 1.5429 | 1.0000 | 2 |
| 26 | 2.1143 | 1.1143 | 1.0000 | 55 |
| 27 | 2.3143 | 1.3714 | 0.9429 | 60 |
| 28 | 2.5714 | 1.6286 | 0.9428 | 80 |
| 29 | 2.7714 | 1.8286 | 0.9428 | 15 |
| 30 | 2.4571 | 1.5143 | 0.9428 | 28 |
| 31 | 2.8000 | 1.8857 | 0.9143 | 48 |
| 32 | 2.3143 | 1.4000 | 0.9143 | 72 |
| 33 | 2.6000 | 1.7143 | 0.8857 | 19 |
| 34 | 2.6857 | 1.8571 | 0.8286 | 51 |
| 35 | 1.7143 | 0.8857 | 0.8286 | 59 |
| 36 | 2.9429 | 2.1429 | 0.8000 | 35 |
| 37 | 2.6000 | 1.8000 | 0.8000 | 74 |
| 38 | 2.4571 | 1.6765 | 0.7806 | 7 |
| 39 | 2.1177 | 1.3429 | 0.7748 | 83 |
| 40 | 2.2286 | 1.4571 | 0.7715 | 62 |

Item Analysis
Differences of Means
Social Scale (continued)

| Rank | High Group (N = 35) | Low Group (N = 35) | Difference | Statement Number |
|---|---|---|---|---|
| 41 | 2.3714 | 1.6000 | 0.7714 | 18 |
| 42 | 2.5143 | 1.7429 | 0.7714 | 24 |
| 43 | 1.8857 | 1.1143 | 0.7714 | 45 |
| 44 | 1.8857 | 1.1177 | 0.7680 | 36 |
| 45 | 1.9429 | 1.2000 | 0.7429 | 26 |
| 46 | 2.5714 | 1.8286 | 0.7428 | 67 |
| 47 | 2.8571 | 2.1429 | 0.7142 | 27 |
| 48 | 2.7714 | 2.0857 | 0.6857 | 22 |
| 49 | 2.7714 | 2.0857 | 0.6857 | 30 |
| 50 | 2.2286 | 1.5714 | 0.6572 | 6 |
| 51 | 2.1429 | 1.4857 | 0.6572 | 64 |
| 52 | 2.0286 | 1.3714 | 0.6572 | 78 |
| 53 | 2.1471 | 1.5143 | 0.6328 | 53 |
| 54 | 1.8857 | 1.2571 | 0.6286 | 33 |
| 55 | 2.0000 | 1.3714 | 0.6286 | 68 |
| 56 | 2.6857 | 2.0588 | 0.6269 | 61 |
| 57 | 2.4286 | 1.8235 | 0.6051 | 40 |
| 58 | 1.8286 | 1.2286 | 0.6000 | 31 |
| 59 | 2.8857 | 2.2857 | 0.6000 | 52 |
| 60 | 2.0286 | 1.4286 | 0.6000 | 69 |
| 61 | 2.4412 | 1.8571 | 0.5841 | 77 |
| 62 | 2.1429 | 1.6000 | 0.5429 | 9 |
| 63 | 2.0286 | 1.4857 | 0.5429 | 75 |
| 64 | 1.7714 | 1.2286 | 0.5428 | 13 |
| 65 | 2.6000 | 2.0588 | 0.5412 | 43 |
| 66 | 2.2286 | 1.7143 | 0.5143 | 79 |
| 67 | 2.7143 | 2.2571 | 0.4572 | 71 |
| 68 | 2.3429 | 1.9143 | 0.4286 | 37 |
| 69 | 2.8000 | 2.3714 | 0.4286 | 82 |
| 70 | 1.4412 | 1.8571 | 0.4159 | 25 |
| 71 | 1.4286 | 1.0286 | 0.4000 | 20 |
| 72 | 2.7059 | 2.3143 | 0.3916 | 47 |
| 73 | 1.4857 | 1.1143 | 0.3714 | 49 |
| 74 | 2.2857 | 1.9429 | 0.3428 | 50 |
| 75 | 1.7714 | 2.0857 | 0.3143 | 5 |
| 76 | 2.1714 | 2.4857 | 0.3143 | 41 |
| 77 | 2.3235 | 2.0294 | 0.2941 | 17 |
| 78 | 1.7714 | 2.0000 | 0.2286 | 91 |
| 79 | 1.6000 | 1.8000 | 0.2000 | 88 |
| 80 | 1.5714 | 1.4000 | 0.1714 | 11 |

Item Analysis
Differences of Means
Social Scale (continued)

| Rank | High Group (N = 35) | Low Group (N = 35) | Difference | Statement Number |
|---|---|---|---|---|
| 81 | 1.2941 | 1.4571 | 0.1630 | 32 |
| 82 | 1.5143 | 1.3714 | 0.1429 | 84 |
| 83 | 1.2571 | 1.1143 | 0.1428 | 1 |
| 84 | 1.9429 | 2.0857 | 0.1428 | 63 |
| 85 | 2.5143 | 2.6286 | 0.1143 | 76 |
| 86 | 2.0857 | 2.0000 | 0.0857 | 3 |
| 87 | 1.3429 | 1.4000 | 0.0571 | 70 |
| 88 | 1.7143 | 1.7647 | 0.0504 | 12 |
| 89 | 1.8571 | 1.8286 | 0.0285 | 85 |
| 90 | 1.5429 | 1.5429 | 0.0000 | 89 |
| 91 | 2.3143 | 2.3143 | 0.0000 | 10 |

Pearson Product Moment Correlation Coefficient
for Social Scale

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 1 | 18 | 18 | 324 | 324 | 324 |
| 2 | 46 | 45 | 2,116 | 2,025 | 2,070 |
| 3 | 25 | 19 | 625 | 361 | 475 |
| 4 | 24 | 23 | 576 | 529 | 552 |
| 5 | 41 | 38 | 1,681 | 1,444 | 1,558 |
| 6 | 34 | 31 | 1,156 | 961 | 1,054 |
| 7 | 33 | 27 | 1,089 | 729 | 891 |
| 8 | 32 | 32 | 1,024 | 1,024 | 1,024 |
| 9 | 39 | 29 | 1,521 | 841 | 1,131 |
| 10 | 12 | 13 | 144 | 169 | 156 |
| 11 | 21 | 16 | 441 | 256 | 336 |
| 12 | 17 | 19 | 289 | 361 | 323 |
| 13 | 41 | 30 | 1,681 | 900 | 1,230 |
| 14 | 23 | 20 | 529 | 400 | 460 |
| 15 | 40 | 33 | 1,600 | 1,089 | 1,320 |
| 16 | 33 | 28 | 1,089 | 784 | 924 |
| 17 | 23 | 30 | 529 | 900 | 690 |
| 18 | 26 | 30 | 676 | 900 | 780 |
| 19 | 38 | 25 | 1,444 | 625 | 950 |
| 20 | 29 | 29 | 841 | 841 | 841 |
| 21 | 22 | 17 | 484 | 289 | 374 |
| 22 | 25 | 21 | 625 | 441 | 525 |
| 23 | 21 | 13 | 441 | 169 | 273 |
| 24 | 14 | 14 | 196 | 196 | 196 |
| 25 | 27 | 17 | 729 | 289 | 459 |
| 26 | 23 | 17 | 529 | 289 | 391 |
| 27 | 26 | 29 | 676 | 841 | 754 |
| 28 | 24 | 17 | 576 | 289 | 408 |
| 29 | 37 | 37 | 1,369 | 1,369 | 1,369 |
| 30 | 33 | 28 | 1,089 | 784 | 924 |
| 31 | 26 | 23 | 676 | 529 | 598 |
| 32 | 25 | 24 | 625 | 576 | 600 |
| 33 | 31 | 30 | 961 | 900 | 930 |
| 34 | 22 | 26 | 484 | 676 | 572 |
| 35 | 20 | 20 | 400 | 400 | 400 |
| 36 | 35 | 39 | 1,225 | 1,521 | 1,365 |
| 37 | 22 | 24 | 484 | 576 | 528 |
| 38 | 24 | 31 | 576 | 961 | 744 |
| 39 | 20 | 22 | 400 | 484 | 440 |
| 40 | 21 | 22 | 441 | 484 | 462 |

Pearson Product Moment Correlation Coefficient
for Social Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 41 | 34 | 36 | 1,156 | 1,296 | 1,224 |
| 42 | 26 | 22 | 676 | 484 | 572 |
| 43 | 22 | 19 | 484 | 361 | 418 |
| 44 | 33 | 32 | 1,089 | 1,024 | 1,056 |
| 45 | 16 | 11 | 256 | 121 | 176 |
| 46 | 17 | 19 | 289 | 361 | 323 |
| 47 | 21 | 16 | 441 | 256 | 336 |
| 48 | 26 | 22 | 676 | 484 | 572 |
| 49 | 33 | 31 | 1,089 | 961 | 1,023 |
| 50 | 48 | 41 | 2,304 | 1,681 | 1,968 |
| 51 | 20 | 8 | 400 | 64 | 160 |
| 52 | 39 | 37 | 1,521 | 1,369 | 1,443 |
| 53 | 27 | 24 | 729 | 576 | 648 |
| 54 | 29 | 23 | 841 | 529 | 667 |
| 55 | 22 | 20 | 484 | 400 | 440 |
| 56 | 20 | 17 | 400 | 289 | 340 |
| 57 | 28 | 27 | 784 | 729 | 756 |
| 58 | 32 | 28 | 1,024 | 784 | 896 |
| 59 | 30 | 29 | 900 | 841 | 870 |
| 60 | 26 | 22 | 676 | 484 | 572 |
| 61 | 23 | 18 | 529 | 324 | 414 |
| 62 | 19 | 23 | 361 | 529 | 437 |
| 63 | 30 | 29 | 900 | 841 | 870 |
| 64 | 34 | 34 | 1,156 | 1,156 | 1,156 |
| 65 | 23 | 24 | 529 | 576 | 552 |
| 66 | 23 | 23 | 529 | 529 | 529 |
| 67 | 26 | 23 | 676 | 529 | 598 |
| 68 | 20 | 24 | 400 | 576 | 480 |
| 69 | 21 | 22 | 441 | 484 | 462 |
| 70 | 31 | 35 | 961 | 1,225 | 1,085 |
| 71 | 15 | 13 | 225 | 169 | 195 |
| 72 | 29 | 24 | 841 | 576 | 696 |
| 73 | 47 | 40 | 2,209 | 1,600 | 1,880 |
| 74 | 22 | 19 | 484 | 361 | 418 |
| 75 | 33 | 34 | 1,089 | 1,156 | 1,122 |
| 76 | 42 | 37 | 1,764 | 1,369 | 1,554 |
| 77 | 34 | 31 | 1,156 | 961 | 1,054 |
| 78 | 28 | 25 | 784 | 625 | 700 |
| 79 | 20 | 19 | 400 | 361 | 380 |
| 80 | 33 | 27 | 1,089 | 729 | 891 |

Pearson Product Moment Correlation Coefficient
for Social Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 81 | 30 | 30 | 900 | 900 | 900 |
| 82 | 25 | 32 | 625 | 1,024 | 800 |
| 83 | 35 | 28 | 1,225 | 784 | 980 |
| 84 | 28 | 31 | 784 | 961 | 868 |
| 85 | 22 | 17 | 484 | 289 | 374 |
| 86 | 31 | 27 | 961 | 729 | 837 |
| 87 | Missing Score | | | | |
| 88 | 36 | 36 | 1,296 | 1,296 | 1,296 |
| 89 | 29 | 23 | 841 | 529 | 667 |
| 90 | 33 | 29 | 1,089 | 841 | 957 |
| 91 | 17 | 24 | 289 | 576 | 408 |
| 92 | 34 | 25 | 1,156 | 625 | 850 |
| 93 | 26 | 26 | 676 | 676 | 676 |
| 94 | 31 | 26 | 961 | 676 | 806 |
| 95 | 33 | 36 | 1,089 | 1,296 | 1,188 |
| 96 | 45 | 39 | 2,025 | 1,521 | 1,755 |
| 97 | 31 | 23 | 961 | 529 | 713 |
| 98 | 29 | 33 | 841 | 1,089 | 957 |
| 99 | 35 | 26 | 1,225 | 676 | 910 |
| 100 | 25 | 22 | 625 | 484 | 550 |
| 101 | 25 | 25 | 625 | 625 | 625 |
| 102 | 20 | 20 | 400 | 400 | 400 |
| 103 | 29 | 27 | 841 | 729 | 783 |
| 104 | 36 | 33 | 1,296 | 1,089 | 1,188 |
| 105 | 20 | 24 | 400 | 576 | 480 |
| 106 | 22 | 20 | 484 | 400 | 440 |
| 107 | 26 | 22 | 676 | 484 | 572 |
| 108 | 21 | 16 | 441 | 256 | 336 |
| 109 | 34 | 30 | 1,156 | 900 | 1,020 |
| 110 | 23 | 25 | 529 | 625 | 575 |
| 111 | 14 | 16 | 196 | 256 | 224 |
| 112 | 15 | 15 | 225 | 225 | 225 |
| 113 | 35 | 32 | 1,225 | 1,024 | 1,120 |
| 114 | 20 | 17 | 400 | 289 | 340 |
| 115 | Missing Score | | | | |
| 116 | 34 | 29 | 1,156 | 841 | 986 |
| 117 | 40 | 33 | 1,600 | 1,089 | 1,320 |
| 118 | 26 | 28 | 676 | 784 | 728 |
| 119 | 22 | 23 | 484 | 529 | 506 |
| 120 | 37 | 29 | 1,369 | 841 | 1,073 |

Pearson Product Moment Correlation Coefficient
for Social Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 121 | 19 | 21 | 361 | 441 | 399 |
| 122 | 16 | 19 | 256 | 361 | 304 |
| 123 | 13 | 13 | 169 | 169 | 169 |
| 124 | 21 | 22 | 441 | 484 | 462 |
| 125 | 10 | 15 | 100 | 225 | 150 |
| 126 | 23 | 16 | 529 | 256 | 368 |
| 127 | 22 | 21 | 484 | 441 | 462 |
| 128 | 15 | 14 | 225 | 196 | 210 |
| 129 | 24 | 22 | 576 | 484 | 528 |
| 130 | 35 | 30 | 1,225 | 900 | 1,050 |
| 131 | Missing Score | | | | |
| 132 | Missing Score | | | | |
| 133 | 18 | 21 | 324 | 441 | 378 |
| 134 | 8 | 11 | 64 | 121 | 88 |
| 135 | 14 | 18 | 196 | 324 | 252 |
| 136 | 33 | 28 | 1,089 | 784 | 924 |
| 137 | 13 | 12 | 169 | 144 | 156 |
| 138 | 13 | 7 | 169 | 49 | 91 |
| 139 | 28 | 22 | 784 | 484 | 616 |
| 140 | 12 | 15 | 144 | 225 | 180 |
| 141 | 19 | 16 | 361 | 256 | 304 |
| 142 | 19 | 24 | 361 | 576 | 456 |
| Total | 3,644 | 3,378 | 105,362 | 90,120 | 96,314 |

Pearson Product Moment
Social Scale

| | | | |
|---|---|---|---|
| $N$ | = 138 | $(\Sigma X)^2$ | = 13,278,736 |
| $\Sigma X$ | = 3,644 | $(\Sigma X)(\Sigma Y)$ | = 12,309,432 |
| $\Sigma Y$ | = 3,378 | $(\Sigma Y)^2$ | = 11,410,884 |
| $\Sigma X^2$ | = 105,362 | $N\Sigma X^2$ | = 14,539,956 |
| $\Sigma Y^2$ | = 90,120 | $N\Sigma Y^2$ | = 12,436,560 |
| $\Sigma XY$ | = 96,314 | $N\Sigma XY$ | = 13,291,332 |

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

$$r = \frac{13,291,332 - 12,309,432}{\sqrt{(14,539,956 - 13,278,736)(12,436,560 - 11,410,884)}}$$

$$r = \frac{981,900}{\sqrt{(1,261,220)(1,025,676)}}$$

$$r = \frac{981,900}{\sqrt{1,293,603,084,720}}$$

$$r = \frac{981,900}{1,137,366.73}$$

$$r = .8633$$

Pearson Product Moment
Social Scale (continued)

$$\text{Reliability on Full Test} = \frac{2 \text{ X Reliability } \frac{1}{2} \text{ Test}}{1 + \text{Reliability } \frac{1}{2} \text{ Test}}$$

$$r = \frac{2 \text{ X } .8633}{1 + .8633}$$

$$r = \frac{1.7266}{1.8633}$$

$$r = .9266$$

Scores and Ranks of High and Low Groups
for Field Test of Economic Scale

| High Group | | Low Group | |
|---|---|---|---|
| Score | Rank | Score | Rank |
| 182 | 1 | 78 | 1 |
| 181 | 2 | 80 | 2 |
| 163 | 3 | 83 | 3 |
| 161 | 4 | 90 | 4 |
| 160 | 5 | 90 | 5 |
| 155 | 6 | 90 | 6 |
| 154 | 7 | 94 | 7 |
| 153 | 8 | 95 | 8 |
| 153 | 9 | 96 | 9 |
| 151 | 10 | 96 | 10 |
| 151 | 11 | 97 | 11 |
| 150 | 12 | 99 | 12 |
| 150 | 13 | 100 | 13 |
| 148 | 14 | 102 | 14 |
| 147 | 15 | 102 | 15 |
| 145 | 16 | 103 | 16 |
| 145 | 17 | 104 | 17 |
| 145 | 18 | 104 | 18 |
| 144 | 19 | 105 | 19 |
| 143 | 20 | 106 | 20 |
| 143 | 21 | 106 | 21 |
| 142 | 22 | 106 | 22 |
| 142 | 23 | 107 | 23 |
| 142 | 24 | 107 | 24 |
| 142 | 25 | 108 | 25 |
| 142 | 26 | 108 | 26 |
| 141 | 27 | 109 | 27 |
| 141 | 28 | 109 | 28 |
| 141 | 29 | 109 | 29 |
| 141 | 30 | 111 | 30 |
| 141 | 31 | 111 | 31 |
| 140 | 32 | 111 | 32 |
| 140 | 33 | 112 | 33 |
| 140 | 34 | 113 | 34 |
| 139 | 35 | 113 | 35 |

Frequency Distribution for Thirty-Five Seniors in High Group from Field Test for Economic Scale

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 1 | 0 | 3 | 1 | 27 | 4 | 2.9143 |
| 2 | 0 | 3 | 5 | 24 | 1 | 2.6970 |
| 3 | 1 | 9 | 5 | 16 | 4 | 2.3714 |
| 4 | 0 | 5 | 11 | 16 | 3 | 2.4857 |
| 5 | 4 | 13 | 9 | 9 | 0 | 1.6571 |
| 6 | 1 | 8 | 5 | 16 | 6 | 2.5000 |
| 7 | 0 | 4 | 2 | 26 | 3 | 2.8000 |
| 8 | 2 | 6 | 17 | 8 | 2 | 2.0571 |
| 9 | 1 | 22 | 8 | 3 | 1 | 1.4571 |
| 10 | 1 | 11 | 9 | 12 | 2 | 2.0857 |
| 11 | 2 | 20 | 9 | 3 | 1 | 1.4571 |
| 12 | 2 | 7 | 8 | 17 | 1 | 2.2286 |
| 13 | 3 | 10 | 8 | 13 | 1 | 1.7425 |
| 14 | 1 | 3 | 7 | 23 | 1 | 2.5714 |
| 15 | 0 | 17 | 11 | 5 | 2 | 1.5714 |
| 16 | 0 | 9 | 4 | 15 | 7 | 2.5714 |
| 17 | 0 | 10 | 10 | 14 | 1 | 2.1714 |
| 18 | 0 | 13 | 4 | 15 | 3 | 2.2286 |
| 19 | 1 | 7 | 6 | 17 | 3 | 2.4118 |
| 20 | 0 | 1 | 1 | 24 | 9 | 3.1714 |
| 21 | 1 | 3 | 9 | 19 | 2 | 2.5294 |
| 22 | 3 | 7 | 7 | 14 | 4 | 1.0294 |
| 23 | 2 | 8 | 8 | 14 | 3 | 2.2286 |
| 24 | 2 | 8 | 4 | 15 | 6 | 2.4286 |
| 25 | 0 | 1 | 7 | 24 | 3 | 2.8286 |
| 26 | 2 | 15 | 8 | 9 | 1 | 1.7714 |
| 27 | 1 | 5 | 10 | 18 | 1 | 2.3714 |
| 28 | 2 | 9 | 10 | 13 | 1 | 2.0571 |
| 29 | 2 | 7 | 11 | 10 | 5 | 2.2571 |
| 30 | 0 | 10 | 4 | 14 | 7 | 2.5143 |
| 31 | 2 | 8 | 12 | 13 | 0 | 2.0286 |
| 32 | 0 | 7 | 2 | 22 | 4 | 2.6571 |
| 33 | 2 | 3 | 2 | 20 | 8 | 2.8286 |
| 34 | 0 | 6 | 10 | 17 | 0 | 2.3333 |
| 35 | 1 | 6 | 1 | 25 | 2 | 2.6000 |
| 36 | 1 | 6 | 2 | 24 | 2 | 1.0000 |
| 37 | 1 | 2 | 5 | 24 | 3 | 2.7429 |
| 38 | 5 | 7 | 8 | 13 | 2 | 2.0000 |
| 39 | 2 | 21 | 3 | 6 | 3 | 1.0000 |
| 40 | 1 | 7 | 10 | 16 | 1 | 2.2571 |
| 41 | 0 | 6 | 6 | 15 | 7 | 2.6765 |

Frequency Distribution for Thirty-Five Seniors in High Group from Field Test for Economic Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 42 | 0 | 7 | 2 | 21 | 5 | 2.6857 |
| 43 | 0 | 4 | 7 | 22 | 1 | 2.5882 |
| 44 | 2 | 9 | 2 | 18 | 4 | 2.3714 |
| 45 | 1 | 7 | 7 | 18 | 2 | 2.3714 |
| 46 | 1 | 2 | 5 | 20 | 7 | 2.8571 |
| 47 | 2 | 2 | 7 | 21 | 3 | 2.6000 |
| 48 | 2 | 12 | 9 | 10 | 2 | 1.9429 |
| 49 | 1 | 6 | 10 | 13 | 5 | 2.4286 |
| 50 | 7 | 19 | 4 | 5 | 0 | 1.2000 |
| 51 | 3 | 2 | 4 | 17 | 8 | 2.7353 |
| 52 | 0 | 4 | 5 | 23 | 3 | 2.7143 |
| 53 | 0 | 5 | 9 | 17 | 4 | 2.5714 |
| 54 | 2 | 13 | 7 | 10 | 3 | 1.4571 |
| 55 | 2 | 8 | 4 | 18 | 3 | 2.3429 |
| 56 | 0 | 11 | 6 | 14 | 4 | 2.3143 |
| 57 | 0 | 0 | 5 | 23 | 7 | 3.0571 |
| 58 | 1 | 2 | 3 | 22 | 7 | 2.9143 |
| 59 | 2 | 4 | 8 | 18 | 3 | 2.4571 |
| 60 | 4 | 10 | 11 | 9 | 1 | 1.8000 |
| 61 | 3 | 15 | 3 | 10 | 4 | 1.9143 |
| 62 | 3 | 12 | 12 | 7 | 1 | 1.7429 |
| 63 | 2 | 9 | 13 | 11 | 0 | 1.9429 |
| 64 | 3 | 9 | 6 | 15 | 2 | 2.1143 |

Frequency Distribution for Thirty-Five Seniors in Low Group from Field Test for Economic Scale

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 1 | 1 | 10 | 6 | 18 | 0 | 2.1714 |
| 2 | 4 | 16 | 9 | 6 | 0 | 1.4857 |
| 3 | 9 | 18 | 6 | 2 | 0 | 1.0286 |
| 4 | 1 | 17 | 12 | 5 | 0 | 1.6000 |
| 5 | 1 | 22 | 8 | 4 | 0 | 1.4286 |
| 6 | 8 | 17 | 6 | 3 | 1 | 1.2000 |
| 7 | 0 | 10 | 11 | 14 | 0 | 2.1143 |
| 8 | 0 | 19 | 15 | 1 | 0 | 1.4857 |
| 9 | 1 | 19 | 12 | 3 | 0 | 1.4857 |
| 10 | 7 | 18 | 7 | 3 | 0 | 1.1714 |
| 11 | 9 | 15 | 10 | 1 | 0 | 1.0857 |
| 12 | 0 | 2 | 14 | 18 | 0 | 2.4706 |
| 13 | 2 | 20 | 7 | 6 | 0 | 1.4857 |
| 14 | 0 | 22 | 6 | 7 | 0 | 1.5714 |
| 15 | 1 | 18 | 13 | 3 | 0 | 1.5143 |
| 16 | 2 | 21 | 5 | 7 | 0 | 1.4857 |
| 17 | 4 | 12 | 15 | 4 | 0 | 1.5429 |
| 18 | 3 | 25 | 2 | 5 | 0 | 1.2571 |
| 19 | 0 | 21 | 4 | 9 | 1 | 1.7143 |
| 20 | 0 | 7 | 7 | 19 | 2 | 2.4571 |
| 21 | 3 | 17 | 9 | 6 | 0 | 1.5143 |
| 22 | 11 | 18 | 4 | 2 | 0 | 0.9143 |
| 23 | 8 | 21 | 4 | 2 | 0 | 1.0000 |
| 24 | 0 | 1 | 2 | 20 | 12 | 3.2286 |
| 25 | 0 | 12 | 11 | 12 | 0 | 2.0000 |
| 26 | 2 | 26 | 7 | 0 | 0 | 1.1429 |
| 27 | 1 | 16 | 18 | 0 | 0 | 1.4857 |
| 28 | 0 | 15 | 12 | 8 | 0 | 1.8000 |
| 29 | 4 | 20 | 8 | 3 | 0 | 1.2857 |
| 30 | 2 | 7 | 16 | 9 | 1 | 2.0000 |
| 31 | 0 | 26 | 7 | 2 | 0 | 1.3143 |
| 32 | 0 | 11 | 10 | 14 | 0 | 2.0857 |
| 33 | 0 | 13 | 9 | 11 | 2 | 2.0571 |
| 34 | 0 | 8 | 19 | 8 | 0 | 2.0000 |
| 35 | 1 | 15 | 7 | 11 | 1 | 1.8857 |
| 36 | 1 | 16 | 11 | 6 | 0 | 1.6471 |
| 37 | 0 | 15 | 7 | 13 | 0 | 1.9429 |
| 38 | 5 | 25 | 5 | 0 | 0 | 1.0000 |
| 39 | 0 | 19 | 10 | 6 | 0 | 1.6286 |
| 40 | 1 | 15 | 17 | 2 | 0 | 1.5714 |
| 41 | 2 | 9 | 9 | 14 | 1 | 2.0857 |

Frequency Distribution for Thirty-Five Seniors in Low Group from Field Test for Economic Scale (continued)

| Statement Number | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Mean |
|---|---|---|---|---|---|---|
| 42 | 0 | 2 | 12 | 18 | 3 | 2.6286 |
| 43 | 1 | 12 | 16 | 6 | 0 | 1.7714 |
| 44 | 6 | 21 | 5 | 3 | 0 | 1.1429 |
| 45 | 7 | 26 | 1 | 1 | 0 | 0.8857 |
| 46 | 0 | 15 | 9 | 11 | 0 | 1.8857 |
| 47 | 0 | 19 | 10 | 6 | 0 | 1.6286 |
| 48 | 3 | 21 | 8 | 3 | 0 | 1.3143 |
| 49 | 2 | 12 | 15 | 6 | 0 | 1.7143 |
| 50 | 2 | 24 | 8 | 0 | 1 | 1.2571 |
| 51 | 8 | 17 | 4 | 6 | 0 | 1.2286 |
| 52 | 1 | 20 | 7 | 7 | 0 | 1.5714 |
| 53 | 4 | 23 | 3 | 5 | 0 | 1.2571 |
| 54 | 7 | 20 | 6 | 2 | 0 | 1.0857 |
| 55 | 0 | 17 | 10 | 7 | 1 | 1.7714 |
| 56 | 1 | 21 | 4 | 7 | 2 | 1.6571 |
| 57 | 0 | 5 | 6 | 23 | 1 | 2.5714 |
| 58 | 1 | 14 | 11 | 9 | 0 | 1.8000 |
| 59 | 0 | 22 | 7 | 6 | 0 | 1.5429 |
| 60 | 7 | 19 | 8 | 1 | 0 | 1.0857 |
| 61 | 9 | 20 | 5 | 1 | 0 | 0.9429 |
| 62 | 8 | 21 | 3 | 3 | 0 | 1.0286 |
| 63 | 0 | 23 | 10 | 3 | 0 | 1.4571 |
| 64 | 4 | 24 | 6 | 0 | 1 | 1.1429 |

Item Analysis
Differences of Means
Economic Scale

| Rank | High Group (N = 35) | Low Group (N = 35) | Difference | Statement Number |
|---|---|---|---|---|
| 1 | 2.7353 | 1.2286 | 1.5067 | 51 |
| 2 | 2.3714 | 0.8857 | 1.4857 | 45 |
| 3 | 2.3714 | 1.0286 | 1.3428 | 3 |
| 4 | 2.5714 | 1.2571 | 1.3143 | 53 |
| 5 | 2.5000 | 1.2000 | 1.3000 | 6 |
| 6 | 2.2286 | 1.0000 | 1.2286 | 23 |
| 7 | 2.3714 | 1.1429 | 1.2285 | 44 |
| 8 | 2.6970 | 1.4857 | 1.2113 | 2 |
| 9 | 2.7143 | 1.5714 | 1.1429 | 52 |
| 10 | 2.9143 | 1.8000 | 1.1143 | 58 |
| 11 | 2.5714 | 1.4857 | 1.0857 | 16 |
| 12 | 2.5294 | 1.5143 | 1.0151 | 21 |
| 13 | 2.5714 | 1.5714 | 1.0000 | 14 |
| 14 | 2.0000 | 1.0000 | 1.0000 | 38 |
| 15 | 2.2286 | 1.2571 | 0.9715 | 18 |
| 16 | 2.2571 | 1.2857 | 0.9714 | 29 |
| 17 | 2.8571 | 1.8857 | 0.9714 | 46 |
| 18 | 2.6000 | 1.6286 | 0.9714 | 47 |
| 19 | 1.9143 | 0.9429 | 0.9714 | 61 |
| 20 | 2.1143 | 1.1429 | 0.9714 | 64 |
| 21 | 2.0857 | 1.1714 | 0.9143 | 10 |
| 22 | 2.4571 | 1.5429 | 0.9142 | 59 |
| 23 | 2.4857 | 1.6000 | 0.8857 | 4 |
| 24 | 2.3714 | 1.4857 | 0.8857 | 27 |
| 25 | 1.9714 | 1.0857 | 0.8857 | 54 |
| 26 | 2.8286 | 2.0000 | 0.8286 | 25 |
| 27 | 2.5882 | 1.7714 | 0.8168 | 43 |
| 28 | 2.4286 | 3.2286 | 0.8000 | 24 |
| 29 | 2.7429 | 1.9429 | 0.8000 | 37 |
| 30 | 2.8286 | 2.0571 | 0.7715 | 33 |
| 31 | 2.9143 | 2.1714 | 0.7429 | 1 |
| 32 | 3.1714 | 2.4571 | 0.7143 | 20 |
| 33 | 2.0286 | 1.3143 | 0.7143 | 31 |
| 34 | 2.6000 | 1.8857 | 0.7143 | 35 |
| 35 | 2.4286 | 1.7143 | 0.7143 | 49 |
| 36 | 1.8000 | 1.0857 | 0.7143 | 60 |
| 37 | 1.7429 | 1.0286 | 0.7143 | 62 |
| 38 | 2.4118 | 1.7143 | 0.6975 | 19 |
| 39 | 2.8000 | 2.1143 | 0.6857 | 7 |
| 40 | 2.2571 | 1.5714 | 0.6857 | 40 |

Item Analysis
Differences of Means
Economic Scale (continued)

| Rank | High Group (N = 35) | Low Group (N = 35) | Difference | Statement Number |
|---|---|---|---|---|
| 41 | 2.3143 | 1.6571 | 0.6572 | 56 |
| 42 | 1.0000 | 1.6471 | 0.6471 | 36 |
| 43 | 1.0000 | 1.6286 | 0.6286 | 39 |
| 44 | 1.9429 | 1.3143 | 0.6286 | 48 |
| 45 | 2.1714 | 1.5429 | 0.6285 | 17 |
| 46 | 1.7714 | 1.1429 | 0.6285 | 26 |
| 47 | 2.6765 | 2.0857 | 0.5908 | 41 |
| 48 | 2.3429 | 1.7714 | 0.5715 | 55 |
| 49 | 2.0571 | 1.4857 | 0.5714 | 8 |
| 50 | 2.6571 | 2.0857 | 0.5714 | 32 |
| 51 | 2.5143 | 2.0000 | 0.5143 | 30 |
| 52 | 1.9429 | 1.4571 | 0.4858 | 63 |
| 53 | 3.0571 | 2.5714 | 0.4857 | 57 |
| 54 | 1.4571 | 1.0857 | 0.3714 | 54 |
| 55 | 2.3333 | 2.0000 | 0.3333 | 34 |
| 56 | 2.0571 | 1.8000 | 0.2571 | 28 |
| 57 | 1.7425 | 1.4857 | 0.2568 | 13 |
| 58 | 2.2286 | 2.4706 | 0.2420 | 12 |
| 59 | 1.6571 | 1.4286 | 0.2285 | 5 |
| 60 | 1.0294 | 0.9143 | 0.1151 | 22 |
| 61 | 1.5714 | 1.5143 | 0.0571 | 15 |
| 62 | 2.6857 | 2.6286 | 0.0571 | 42 |
| 63 | 1.2000 | 1.2571 | 0.0571 | 50 |
| 64 | 1.4571 | 1.4857 | 0.0286 | 9 |

Pearson Product Moment Correlation Coefficient
for Economic Scale

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 1 | 31 | 24 | 961 | 576 | 744 |
| 2 | 16 | 30 | 256 | 900 | 480 |
| 3 | 29 | 32 | 841 | 1,024 | 928 |
| 4 | 29 | 23 | 841 | 529 | 667 |
| 5 | 22 | 26 | 484 | 676 | 572 |
| 6 | 28 | 24 | 784 | 576 | 672 |
| 7 | 24 | 28 | 576 | 784 | 672 |
| 8 | 23 | 26 | 529 | 676 | 598 |
| 9 | 23 | 27 | 529 | 729 | 621 |
| 10 | 26 | 27 | 676 | 729 | 702 |
| 11 | 26 | 23 | 676 | 529 | 598 |
| 12 | 24 | 22 | 576 | 484 | 528 |
| 13 | 23 | 21 | 529 | 441 | 483 |
| 14 | 26 | 27 | 676 | 729 | 702 |
| 15 | 23 | 30 | 529 | 900 | 690 |
| 16 | 25 | 27 | 625 | 729 | 675 |
| 17 | 28 | 20 | 784 | 400 | 560 |
| 18 | 22 | 32 | 484 | 1,024 | 704 |
| 19 | 24 | 32 | 576 | 1,024 | 768 |
| 20 | 29 | 28 | 841 | 784 | 812 |
| 21 | 32 | 25 | 1,024 | 625 | 800 |
| 22 | 22 | 33 | 484 | 1,089 | 726 |
| 23 | 31 | 25 | 961 | 625 | 775 |
| 24 | 34 | 15 | 1,156 | 225 | 510 |
| 25 | 24 | 26 | 576 | 676 | 624 |
| 26 | 25 | 24 | 625 | 576 | 600 |
| 27 | 21 | 30 | 441 | 900 | 630 |
| 28 | 31 | 22 | 961 | 484 | 682 |
| 29 | 19 | 22 | 361 | 484 | 418 |
| 30 | 22 | 26 | 484 | 676 | 572 |
| 31 | 21 | 25 | 441 | 625 | 525 |
| 32 | 22 | 16 | 484 | 256 | 352 |
| 33 | 18 | 19 | 324 | 361 | 342 |
| 34 | 22 | 16 | 484 | 256 | 352 |
| 35 | 24 | 20 | 576 | 400 | 480 |
| 36 | 12 | 31 | 144 | 961 | 372 |
| 37 | 22 | 24 | 484 | 576 | 528 |
| 38 | 26 | 19 | 676 | 361 | 494 |
| 39 | 19 | 20 | 361 | 400 | 380 |
| 40 | 25 | 21 | 625 | 441 | 525 |

Pearson Product Moment Correlation Coefficient
for Economic Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 41 | 22 | 26 | 484 | 676 | 572 |
| 42 | 32 | 21 | 1,024 | 441 | 672 |
| 43 | Missing Score | | | | |
| 44 | 27 | 21 | 729 | 441 | 567 |
| 45 | 24 | 21 | 576 | 441 | 504 |
| 46 | 22 | 17 | 484 | 289 | 374 |
| 47 | 25 | 28 | 625 | 784 | 700 |
| 48 | 22 | 25 | 484 | 625 | 550 |
| 49 | 15 | 27 | 225 | 729 | 405 |
| 50 | 13 | 36 | 169 | 1,296 | 468 |
| 51 | 21 | 22 | 441 | 484 | 462 |
| 52 | 23 | 28 | 529 | 784 | 644 |
| 53 | 25 | 18 | 625 | 324 | 450 |
| 54 | 20 | 21 | 400 | 441 | 420 |
| 55 | 20 | 23 | 400 | 529 | 460 |
| 56 | 24 | 20 | 576 | 400 | 480 |
| 57 | 26 | 24 | 676 | 576 | 624 |
| 58 | 24 | 30 | 576 | 900 | 720 |
| 59 | 25 | 32 | 625 | 1,024 | 800 |
| 60 | 26 | 21 | 676 | 441 | 546 |
| 61 | 28 | 21 | 784 | 441 | 588 |
| 62 | 29 | 22 | 841 | 484 | 638 |
| 63 | 28 | 23 | 784 | 529 | 644 |
| 64 | 20 | 24 | 400 | 576 | 480 |
| 65 | 25 | 21 | 625 | 441 | 525 |
| 66 | 29 | 22 | 841 | 484 | 638 |
| 67 | 21 | 18 | 441 | 324 | 378 |
| 68 | 17 | 30 | 289 | 900 | 510 |
| 69 | 24 | 21 | 576 | 441 | 504 |
| 70 | 24 | 23 | 576 | 529 | 552 |
| 71 | 33 | 18 | 1,089 | 324 | 594 |
| 72 | 22 | 17 | 484 | 289 | 374 |
| 73 | 16 | 41 | 256 | 1,681 | 656 |
| 74 | 32 | 25 | 1,024 | 625 | 800 |
| 75 | 21 | 26 | 441 | 676 | 546 |
| 76 | 32 | 30 | 1,024 | 900 | 960 |
| 77 | 30 | 27 | 900 | 729 | 810 |
| 78 | 28 | 26 | 784 | 676 | 728 |
| 79 | 31 | 24 | 961 | 576 | 744 |
| 80 | 38 | 24 | 1,444 | 576 | 912 |

Pearson Product Moment Correlation Coefficient
for Economic Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 81 | 20 | 26 | 400 | 676 | 520 |
| 82 | 31 | 23 | 961 | 529 | 713 |
| 83 | 31 | 30 | 961 | 900 | 930 |
| 84 | 29 | 31 | 841 | 961 | 899 |
| 85 | 33 | 29 | 1,089 | 841 | 957 |
| 86 | 25 | 34 | 625 | 1,156 | 850 |
| 87 | 32 | 26 | 1,024 | 676 | 832 |
| 88 | 33 | 35 | 1,089 | 1,225 | 1,155 |
| 89 | 36 | 28 | 1,296 | 784 | 1,008 |
| 90 | 31 | 30 | 961 | 900 | 930 |
| 91 | 30 | 27 | 900 | 729 | 810 |
| 92 | 28 | 31 | 784 | 961 | 868 |
| 93 | 33 | 33 | 1,089 | 1,089 | 1,089 |
| 94 | 35 | 33 | 1,225 | 1,089 | 1,155 |
| 95 | 39 | 41 | 1,521 | 1,681 | 1,599 |
| 96 | 28 | 40 | 784 | 1,600 | 1,120 |
| 97 | 31 | 35 | 961 | 1,225 | 1,085 |
| 98 | 44 | 35 | 1,936 | 1,225 | 1,540 |
| 99 | 44 | 46 | 1,936 | 2,116 | 2,024 |
| 100 | 27 | 31 | 729 | 961 | 837 |
| 101 | 30 | 30 | 900 | 900 | 900 |
| 102 | 32 | 23 | 1,024 | 529 | 736 |
| 103 | 27 | 29 | 729 | 841 | 783 |
| 104 | 26 | 29 | 676 | 841 | 754 |
| 105 | 32 | 26 | 1,024 | 676 | 832 |
| 106 | 33 | 26 | 1,089 | 676 | 858 |
| 107 | 35 | 25 | 1,225 | 625 | 875 |
| 108 | 22 | 22 | 484 | 484 | 484 |
| 109 | 23 | 19 | 529 | 361 | 437 |
| 110 | 20 | 20 | 400 | 400 | 400 |
| 111 | 23 | 16 | 529 | 256 | 368 |
| 112 | 20 | 14 | 400 | 196 | 280 |
| 113 | 14 | 18 | 196 | 324 | 252 |
| 114 | 24 | 18 | 576 | 324 | 432 |
| 115 | Missing Score | | | | |
| 116 | 16 | 17 | 256 | 289 | 272 |
| 117 | 15 | 23 | 225 | 529 | 345 |
| 118 | 17 | 22 | 289 | 484 | 374 |
| 119 | 20 | 21 | 400 | 441 | 420 |
| 120 | 13 | 19 | 169 | 361 | 247 |

Pearson Product Moment Correlation Coefficient
for Economic Scale (continued)

| Subject Number | X Score | Y Score | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| 121 | 19 | 15 | 361 | 225 | 285 |
| 122 | 13 | 11 | 169 | 121 | 143 |
| 123 | 15 | 11 | 225 | 121 | 165 |
| 124 | 13 | 17 | 169 | 289 | 221 |
| 125 | 18 | 11 | 324 | 121 | 198 |
| 126 | 17 | 16 | 289 | 256 | 272 |
| 127 | 17 | 17 | 289 | 289 | 289 |
| 128 | 13 | 17 | 169 | 289 | 221 |
| 129 | 15 | 14 | 225 | 196 | 210 |
| 130 | 17 | 18 | 289 | 324 | 306 |
| 131 | 19 | 15 | 361 | 225 | 285 |
| 132 | 18 | 16 | 324 | 256 | 288 |
| 133 | 21 | 19 | 441 | 361 | 399 |
| 134 | 16 | 14 | 256 | 196 | 224 |
| 135 | 25 | 18 | 625 | 324 | 450 |
| 136 | 20 | 19 | 400 | 361 | 380 |
| 137 | 18 | 14 | 324 | 196 | 252 |
| 138 | 19 | 15 | 361 | 225 | 285 |
| 139 | 17 | 16 | 289 | 256 | 272 |
| 140 | 17 | 14 | 289 | 196 | 238 |
| 141 | 13 | 12 | 169 | 144 | 156 |
| 142 | 12 | 11 | 144 | 121 | 132 |
| Total | 3,391 | 3,323 | 88,057 | 85,019 | 83,503 |

Pearson Product Moment
Economic Scale

| | | | |
|---|---|---|---|
| $N$ | = 140 | $(\Sigma X)^2$ | = 11,498,881 |
| $\Sigma X$ | = 3,391 | $(\Sigma X)(\Sigma Y)$ | = 11,268,293 |
| $\Sigma Y$ | = 3,323 | $(\Sigma Y)^2$ | = 11,042,329 |
| $\Sigma X^2$ | = 88,057 | $N\Sigma X^2$ | = 12,327,980 |
| $\Sigma Y^2$ | = 85,019 | $N\Sigma Y^2$ | = 11,902,660 |
| $\Sigma XY$ | = 83,503 | $N\Sigma XY$ | = 11,690,420 |

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

$$r = \frac{11,690,420 - 11,268,293}{\sqrt{(12,327,980 - 11,498,881)(11,902,660 - 11,042,329)}}$$

$$r = \frac{422,127}{\sqrt{(829,099)(860,331)}}$$

$$r = \frac{422,127}{\sqrt{713,299,571,769}}$$

$$r = \frac{422,127}{844,570.64}$$

$$r = .4998$$

Pearson Product Moment
Economic Scale (continued)

$$\text{Reliability on Full Test} = \frac{2 \times \text{Reliability } \tfrac{1}{2} \text{ Test}}{1 + \text{Reliability } \tfrac{1}{2} \text{ Test}}$$

$$r = \frac{2 \times .4998}{1 + .4998}$$

$$r = \frac{.9996}{1.4998}$$

$$r = .67$$

# APPENDIX B

# THE INSTRUMENT

# INTRODUCTION

This questionnaire is an attempt to get your opinion on some important issues. We are interested only in YOUR agreement or disagreement with the following statements. There are no "right" or "wrong" answers. The best answer is your HONEST, FRANK opinion. All we ask is that you:

a. Read each statement carefully and mark it according to your first reaction. It isn't necessary to take a lot of time for any one question.

b. Answer every question.

c. Give your personal point of view. Don't talk about the questions with anyone until you have finished.

d. Be as sincere, accurate, and complete as possible.

For every item, please check your personal reaction to the statement according to the following code:

Strongly Disagree  Disagree  Undecided  Agree  Strongly Agree

For every item please check (✓) your personal reaction to the statement according to the following code:

SD = Strongly Disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly Agree

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 1. It takes greater effort to get along socially at four-year colleges than at community colleges. | | | | | |
| 2. It is more desirable to attend four-year colleges rather than community colleges. | | | | | |
| 3. Campus life at community colleges is "dullsville" compared to life at four-year colleges. | | | | | |
| 4. Four-year colleges are more attractive than community colleges. | | | | | |
| 5. It is easier to violate rules at four-year colleges than at community colleges. | | | | | |
| 6. Students at four-year colleges are more open-minded than students at community colleges. | | | | | |
| 7. Four-year colleges provide more ideas for social improvement than community colleges | | | | | |
| 8. There is more immoral behavior at four-year colleges than at community colleges. | | | | | |
| 9. I would enjoy myself more at a four-year college than at a community college. | | | | | |
| 10. There are more advantages at four-year colleges than at community colleges. | | | | | |
| 11. Social life is better at four-year colleges than at community colleges. | | | | | |
| 12. There is greater opportunity to be sociable at four-year colleges than at community colleges. | | | | | |

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 13. Social events at four-year colleges rate more highly than social events at community colleges. | | | | | |
| 14. Four-year colleges are more satisfying than community colleges. | | | | | |
| 15. There are more students from all walks of life at four-year colleges than at community colleges. | | | | | |
| 16. Students' talents are better developed by four-year colleges than by community colleges. | | | | | |
| 17. Students at four-year colleges are more satisfied than students at community colleges. | | | | | |
| 18. It is more desirable to mix and mingle with the crowd at four-year colleges than at community colleges. | | | | | |
| 19. Four-year colleges offer more freedom than community colleges. | | | | | |
| 20. Upperclassmen accept new students more quickly at community colleges than they do at four-year colleges. | | | | | |
| 21. The best social life is experienced at four-year colleges instead of community colleges. | | | | | |
| 22. There are more social advantages at four-year colleges than at community colleges. | | | | | |
| 23. Four-year colleges are better than community colleges. | | | | | |
| 24. Students learn more about people by attending four-year colleges than by attending community colleges. | | | | | |
| 25. Social life is more desirable at four-year colleges than at community colleges. | | | | | |

PLEASE TURN THE PAGE AND CONTINUE

# BIOGRAPHICAL DATA FORM

You do not have to give your name. Responses cannot be identified. Please be as accurate as possible and complete every item.

1. Sex: M or F
   (Circle)

2. High School: _____

3. By placing an "X" in the appropriate blank, please indicate the highest level of education for your father and mother.

| FATHER | | MOTHER |
|---|---|---|
| _____ | Received graduate school degree | _____ |
| _____ | Attended graduate school | _____ |
| _____ | Received a two (2) year college degree | _____ |
| _____ | Received a four (4) year college degree | _____ |
| _____ | Attended a two-year college | _____ |
| _____ | Attended a four (4) year college | _____ |
| _____ | Attended technical, special school beyond high school | _____ |
| _____ | Received high school diploma | _____ |
| _____ | Attended high school | _____ |
| _____ | Completed elementary school | _____ |
| _____ | Completed less than seven grades | _____ |

4. How many brothers and sisters do you have?

   _____ Brothers (Number)  _____ Sisters (Number)

5. By placing an "X" in the appropriate blank, please indicate <u>when</u> you decided what you would do after graduation.

   _____ Have not yet decided

   _____ Decided this school year

   _____ Decided in the eleventh grade

   _____ Decided before the eleventh grade

6. By placing an "X" in the appropriate blank, please indicate the category in which your father's and mother's occupations would fall.

| FATHER | | | | MOTHER | | |
|---|---|---|---|---|---|---|
| OWNER | MANAGER | LABORER | | OWNER | MANAGER | LABORER |
| _____ | _____ | _____ | Agriculture, forestry, and fisheries | _____ | _____ | _____ |
| _____ | _____ | _____ | Mining | _____ | _____ | _____ |
| _____ | _____ | _____ | Construction | _____ | _____ | _____ |
| _____ | _____ | _____ | Manufacturing | _____ | _____ | _____ |
| _____ | _____ | _____ | Transportation, communication, other public utilities | _____ | _____ | _____ |
| _____ | _____ | _____ | Wholesale and retail trade | _____ | _____ | _____ |
| _____ | _____ | _____ | Finance, insurance, real estate | _____ | _____ | _____ |
| _____ | _____ | _____ | Business and repair services | _____ | _____ | _____ |
| _____ | _____ | _____ | Personal services | _____ | _____ | _____ |
| _____ | _____ | _____ | Entertainment and recreation services | _____ | _____ | _____ |
| _____ | _____ | _____ | Professional and related services | _____ | _____ | _____ |
| _____ | _____ | _____ | Public administration | _____ | _____ | _____ |

Housewife _____

Unemployed: Father _____ Mother _____.

7. How much education do you intend to get? How much education <u>should</u> today's senior get for tomorrow's world? Please indicate by placing an "X" in the appropriate blanks.

| I Expect to Achieve (Mark One) | | Level of Education That a Senior Should Achieve for Tomorrow's World (Mark One) |
|---|---|---|
| _____ | Graduate School degree | _____ |
| _____ | Attend Graduate School | _____ |
| _____ | Receive College Degree | _____ |
| _____ | Attend College | _____ |
| _____ | Attend technical, special school | _____ |
| _____ | Receive high school diploma | _____ |

8. Which of these occupational groups do you intend to select when you enter the job market? Please indicate by placing an "X" in the appropriate blank.

Agriculture, forestry, and fisheries _____

Mining _____

Construction _____

Manufacturing _____

Transportation, communication, other public utilities _____

Wholesale and retail trade _____

Finance, insurance, real estate _____

Business and repair services _____

Personal services _____

Entertainment and recreation services _____

Professional and related services _____

Public administration _____

9. Who had the most influence on your educational aspirations? Please indicate by placing ONLY one "X" in the appropriate blank.

_____ Father

_____ Mother

_____ Brother

_____ Sister

_____ Relative

_____ Principal

_____ Teacher

_____ Guidance Counselor

_____ Friends

_____ Other

10. After you graduate, which of the following do you plan to do? Select only one answer by placing an "X" in the appropriate blank.

_____ Attend a two (2) year college

_____ Attend a four (4) year college

_____ Attend other type of post-secondary school

_____ Enter military service

_____ Get a job

_____ Travel

_____ Get married (no outside job)

_____ No definite plans

_____ Do not know

THANK YOU FOR COMPLETING THIS INSTRUMENT

# APPENDIX C

# BACK-UP TABLES

Table 9-A

Educational Levels of Buchanan County Seniors' Fathers

| Categories | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 0 | 0.0 | 0 | 0.0 | 8 | 5.2 | 0 | 0.0 | 0 | 0.0 |
| Attended Graduate School | 1 | 2.4 | 1 | 2.4 | 0 | 0.0 | 1 | 2.6 | 2 | 5.7 |
| Received Two-Year College Degree | 0 | 0.0 | 0 | 0.0 | 2 | 1.3 | 0 | 0.0 | 1 | 2.9 |
| Received Four-Year College Degree | 1 | 2.4 | 3 | 6.4 | 2 | 1.3 | 0 | 0.0 | 1 | 2.9 |
| Attended a Two-Year College | 0 | 0.0 | 1 | 2.1 | 1 | .7 | 1 | 2.6 | 0 | 0.0 |
| Attended a Four-Year College | 0 | 0.0 | 1 | 2.1 | 3 | 2.0 | 0 | 0.0 | 0 | 0.0 |
| Attended Technical, Special School Beyond High School | 2 | 4.8 | 1 | 2.1 | 9 | 5.9 | 0 | 0.0 | 1 | 2.9 |
| Received High School Diploma | 3 | 7.1 | 2 | 4.3 | 28 | 18.3 | 2 | 5.3 | 5 | 14.3 |
| Attended High School | 13 | 31.0 | 14 | 29.8 | 43 | 28.1 | 9 | 23.7 | 9 | 25.7 |
| Completed Elementary School | 3 | 7.1 | 4 | 8.5 | 18 | 11.8 | 10 | 26.3 | 6 | 17.1 |
| Completed Less Than Seven Grades | 18 | 42.9 | 18 | 38.3 | 30 | 20.0 | 15 | 39.5 | 10 | 28.6 |
| No Response | 1 | 2.4 | 2 | 4.3 | 9 | 5.9 | 0 | 0.0 | 0 | 0.0 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 9-B

Educational Levels of Dickenson County Seniors' Fathers

| Categories | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Received Graduate School Degree | 7 | 7.9 | 3 | 3.8 | 0 | 0.0 |
| Attended Graduate School | 1 | 1.1 | 2 | 2.5 | 0 | 0.0 |
| Received Two-Year College Degree | 1 | 1.1 | 1 | 1.3 | 0 | 0.0 |
| Received Four-Year College Degree | 1 | 1.1 | 6 | 7.6 | 1 | 2.4 |
| Attended a Two-Year College | 0 | 0.0 | 2 | 2.5 | 0 | 0.0 |
| Attended a Four-Year College | 0 | 0.0 | 2 | 2.5 | 0 | 0.0 |
| Attended Technical, Special School Beyond High School | 7 | 7.9 | 2 | 2.5 | 7 | 16.7 |
| Received a High School Diploma | 17 | 19.1 | 7 | 8.9 | 6 | 14.3 |
| Attended High School | 20 | 22.5 | 16 | 20.3 | 14 | 33.3 |
| Completed Elementary School | 18 | 20.2 | 21 | 26.6 | 8 | 19.0 |
| Completed Less than Seven Grades | 13 | 14.6 | 17 | 21.5 | 6 | 14.3 |
| No Response | 4 | 4.5 | 2 | 2.5 | 0 | 0.0 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 9-C

Educational Levels of Russell County Seniors' Fathers

| Category | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Received Graduate School Degree | 3 | 3.7 | 4 | 4.2 | 14 | 10.6 |
| Attended Graduate School | 0 | 0.0 | 1 | 1.0 | 3 | 2.3 |
| Received Two-Year College Degree | 1 | 1.2 | 1 | 1.0 | 3 | 2.3 |
| Received Four-Year College Degree | 2 | 2.5 | 1 | 1.0 | 2 | 1.5 |
| Attended a Two-Year College | 1 | 1.2 | 1 | 1.0 | 0 | 0.0 |
| Attended a Four-Year College | 3 | 3.7 | 1 | 1.0 | 1 | 0.8 |
| Attended Technical, Special School Beyond High School | 4 | 4.9 | 6 | 6.3 | 9 | 6.8 |
| Received a High School Diploma | 21 | 25.9 | 10 | 10.4 | 29 | 22.0 |
| Attended High School | 25 | 30.9 | 27 | 28.1 | 37 | 28.0 |
| Completed Elementary School | 8 | 9.9 | 15 | 15.6 | 11 | 8.3 |
| Completed Less Than Seven Grades | 10 | 12.3 | 27 | 28.1 | 20 | 15.2 |
| No Response | 3 | 3.7 | 2 | 2.1 | 3 | 2.3 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 9-D

Educational Levels of Tazewell County Seniors' Fathers

| Categories | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 5 | 4.4 | 0 | 0.0 | 7 | 3.3 | 8 | 5.6 |
| Attended Graduate School | 5 | 4.4 | 1 | 2.7 | 3 | 1.4 | 2 | 1.4 |
| Received Two-Year College Degree | 6 | 5.3 | 0 | 0.0 | 7 | 3.3 | 3 | 2.1 |
| Received Four-Year College Degree | 3 | 2.7 | 0 | 0.0 | 8 | 3.8 | 6 | 4.2 |
| Attended a Two-Year College | 3 | 2.7 | 0 | 0.0 | 2 | 0.9 | 2 | 1.4 |
| Attended a Four-Year College | 2 | 1.8 | 0 | 0.0 | 6 | 2.8 | 5 | 3.5 |
| Attended Technical, Special School Beyond High School | 14 | 12.4 | 3 | 8.1 | 26 | 12.2 | 11 | 7.7 |
| Received High School Diploma | 33 | 29.2 | 9 | 24.3 | 35 | 16.4 | 41 | 28.7 |
| Attended High School | 27 | 23.9 | 12 | 32.4 | 51 | 23.9 | 24 | 16.8 |
| Completed Elementary School | 6 | 5.3 | 6 | 16.2 | 22 | 10.3 | 10 | 7.0 |
| Completed Less than Seven Grades | 4 | 3.5 | 6 | 16.2 | 36 | 16.9 | 27 | 18.9 |
| No Response | 5 | 4.4 | 0 | 0.0 | 10 | 4.7 | 4 | 2.8 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 10-A

Educational Levels of Buchanan County Seniors' Mothers

| Categories | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 0 | 0.0 | 0 | 0.0 | 8 | 5.2 | 2 | 5.3 | 1 | 2.9 |
| Attended Graduate School | 2 | 4.8 | 0 | 0.0 | 3 | 2.0 | 1 | 2.6 | 0 | 0.0 |
| Received Two-Year College Degree | 0 | 0.0 | 1 | 2.1 | 4 | 2.6 | 0 | 0.0 | 3 | 8.6 |
| Received Four-Year College Degree | 2 | 4.8 | 1 | 2.1 | 4 | 2.6 | 1 | 2.6 | 0 | 0.0 |
| Attended a Two-Year College | 1 | 2.4 | 3 | 6.4 | 2 | 1.3 | 0 | 0.0 | 2 | 5.7 |
| Attended a Four-Year College | 0 | 0.0 | 0 | 0.0 | 5 | 3.3 | 0 | 0.0 | 0 | 0.0 |
| Attended Technical, Special School Beyond High School | 0 | 0.0 | 0 | 0.0 | 3 | 2.0 | 1 | 2.6 | 1 | 2.9 |
| Received High School Diploma | 10 | 23.8 | 7 | 14.9 | 36 | 23.5 | 4 | 10.5 | 9 | 25.7 |
| Attended High School | 10 | 23.8 | 16 | 34.0 | 53 | 34.6 | 16 | 42.1 | 9 | 25.7 |
| Completed Elementary School | 9 | 21.4 | 8 | 17.0 | 10 | 6.5 | 7 | 18.4 | 6 | 17.1 |
| Completed Less Than Seven Grades | 7 | 16.7 | 8 | 17.0 | 17 | 11.1 | 6 | 15.8 | 2 | 5.7 |
| No Response | 1 | 2.4 | 3 | 6.4 | 8 | 5.2 | 0 | 0.0 | 2 | 5.7 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 10-B

Educational Levels of Dickenson County Seniors' Mothers

| Categories | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Received Graduate School Degree | 3 | 3.4 | 2 | 2.5 | 1 | 2.4 |
| Attended Graduate School | 1 | 1.1 | 0 | 0.0 | 0 | 0.0 |
| Received Two-Year College Degree | 2 | 2.2 | 1 | 1.3 | 2 | 4.8 |
| Received Four-Year College Degree | 1 | 1.1 | 3 | 3.8 | 0 | 0.0 |
| Attended a Two-Year College | 2 | 2.2 | 3 | 3.8 | 0 | 0.0 |
| Attended a Four-Year College | 4 | 4.5 | 5 | 6.3 | 0 | 0.0 |
| Attended Technical, Special School Beyond High School | 2 | 2.2 | 2 | 2.5 | 2 | 4.8 |
| Received High School Diploma | 24 | 27.0 | 11 | 13.9 | 9 | 21.4 |
| Attended High School | 26 | 29.2 | 20 | 25.3 | 18 | 42.9 |
| Completed Elementary School | 13 | 14.6 | 18 | 22.8 | 4 | 9.5 |
| Completed Less Than Seven Grades | 6 | 6.7 | 12 | 15.2 | 4 | 9.5 |
| No Response | 5 | 5.6 | 2 | 2.5 | 2 | 4.8 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 10-C

Educational Levels of Russell County Seniors' Mothers

| Category | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Received Graduate School Degree | 1 | 1.2 | 4 | 4.2 | 8 | 6.1 |
| Attended Graduate School | 0 | 0.0 | 0 | 0.0 | 4 | 3.0 |
| Received Two-Year College Degree | 2 | 2.5 | 3 | 3.1 | 3 | 2.3 |
| Received Four-Year College Degree | 1 | 1.2 | 2 | 2.1 | 7 | 5.3 |
| Attended a Two-Year College | 0 | 0.0 | 0 | 0.0 | 5 | 3.8 |
| Attended a Four-Year College | 3 | 3.7 | 0 | 0.0 | 1 | 0.8 |
| Attended Technical, Special School Beyond High School | 5 | 6.2 | 2 | 2.1 | 4 | 3.0 |
| Received High School Diploma | 27 | 33.3 | 22 | 22.9 | 42 | 31.8 |
| Attended High School | 29 | 35.8 | 37 | 38.5 | 41 | 31.1 |
| Completed Elementary School | 5 | 6.2 | 11 | 11.5 | 9 | 6.8 |
| Completed Less Than Seven Grades | 6 | 7.4 | 11 | 11.5 | 4 | 3.0 |
| No Response | 2 | 2.5 | 4 | 4.2 | 4 | 3.0 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 10-D

Educational Levels of Tazewell County Seniors' Mothers

| Categories | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Received Graduate School Degree | 7 | 6.2 | 0 | 0.0 | 10 | 4.7 | 5 | 3.5 |
| Attended Graduate School | 0 | 0.0 | 0 | 0.0 | 3 | 1.4 | 1 | 0.7 |
| Received Two-Year College Degree | 7 | 6.2 | 1 | 2.7 | 5 | 2.3 | 1 | 0.7 |
| Received Four-Year College Degree | 4 | 3.5 | 0 | 0.0 | 6 | 2.8 | 8 | 5.6 |
| Attended a Two-Year College | 5 | 4.4 | 0 | 0.0 | 1 | 0.5 | 4 | 2.8 |
| Attended a Four-Year College | 3 | 2.7 | 0 | 0.0 | 1 | 0.5 | 4 | 2.8 |
| Attended Technical, Special School Beyond High School | 9 | 8.0 | 1 | 2.7 | 13 | 6.1 | 8 | 5.6 |
| Received High School Diploma | 39 | 34.5 | 15 | 40.5 | 66 | 31.0 | 52 | 36.4 |
| Attended High School | 21 | 18.6 | 13 | 35.1 | 66 | 31.0 | 34 | 23.8 |
| Completed Elementary School | 2 | 1.8 | 3 | 8.1 | 17 | 8.0 | 10 | 7.0 |
| Completed Less than Seven Grades | 5 | 4.4 | 3 | 8.1 | 17 | 8.0 | 13 | 9.1 |
| No Response | 11 | 9.7 | 1 | 2.7 | 10 | 4.7 | 4 | 2.8 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 11-A

Frequency of Three Levels of Education
for Buchanan County Seniors'
Fathers and Mothers

| Level of Education | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| No Response | 7 | 2.6 | 10 | 3.7 |
| High Level | 39 | 14.3 | 45 | 16.5 |
| Medium Level | 33 | 12.1 | 53 | 19.4 |
| Low Level | 194 | 71.1 | 165 | 60.4 |
| Total | 273 | 100.0 | 273 | 100.0 |

Table 11-B

Frequency of Three Levels of Education
for Dickenson County Seniors'
Fathers and Mothers

| Level of Education | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| No Response | 2 | 1.1 | 6 | 3.2 |
| High Level | 36 | 19.1 | 34 | 18.1 |
| Medium Level | 28 | 14.9 | 41 | 21.8 |
| Low Level | 122 | 64.9 | 107 | 57.0 |
| Total | 188 | 100.0 | 188 | 100.0 |

Table 11-C

Frequency of Three Levels of Education
for Russell County Seniors'
Fathers and Mothers

| Level of Education | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| No Response | 6 | 2.2 | 7 | 2.5 |
| High Level | 57 | 20.6 | 50 | 18.1 |
| Medium Level | 53 | 19.1 | 83 | 30.0 |
| Low Level | 161 | 58.1 | 137 | 49.5 |
| Total | 277 | 100.0 | 277 | 100.0 |

Table 11-D

Frequency of Three Levels of Education
for Tazewell County Seniors'
Fathers and Mothers

| Level of Education | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| No Response | 10 | 2.2 | 16 | 3.6 |
| High Level | 128 | 28.7 | 100 | 22.4 |
| Medium Level | 106 | 23.8 | 156 | 35.0 |
| Low Level | 202 | 45.3 | 174 | 39.0 |
| Total | 446 | 100.0 | 446 | 100.0 |

Table 12-A

Occupations of Buchanan County Seniors' Fathers by Thirteen Classifications

| Occupational Classifications | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 2 | 4.8 | 0 | 0.0 | 1 | 0.7 | 2 | 5.3 | 0 | 0.0 |
| Mining | 17 | 40.5 | 29 | 61.7 | 82 | 53.6 | 16 | 42.1 | 27 | 77.1 |
| Construction | 4 | 9.5 | 1 | 2.1 | 6 | 3.9 | 3 | 7.9 | 0 | 0.0 |
| Manufacturing | 2 | 4.8 | 0 | 0.0 | 1 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Transportation, Communication, Other Public Utilities | 1 | 2.4 | 1 | 2.1 | 5 | 3.3 | 3 | 7.9 | 1 | 2.9 |
| Wholesale and Retail Trade | 0 | 0.0 | 1 | 2.1 | 11 | 7.2 | 1 | 2.6 | 0 | 0.0 |
| Finance, Insurance, Real Estate | 0 | 0.0 | 0 | 0.0 | 2 | 1.3 | 0 | 0.0 | 0 | 0.0 |
| Business and Repair Services | 1 | 2.4 | 2 | 4.3 | 9 | 5.9 | 2 | 5.3 | 1 | 2.9 |
| Personal Services | 0 | 0.0 | 0 | 0.0 | 3 | 2.0 | 1 | 2.6 | 0 | 0.0 |
| Entertainment and Recreation Services | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Professional and Related Services | 1 | 2.4 | 0 | 0.0 | 3 | 2.0 | 0 | 0.0 | 1 | 2.9 |
| Public Administration | 2 | 4.8 | 1 | 2.1 | 2 | 1.3 | 0 | 0.0 | 0 | 0.0 |
| Unemployed | 9 | 21.4 | 10 | 21.3 | 11 | 7.2 | 9 | 23.7 | 3 | 8.6 |
| No Response | 3 | 7.1 | 2 | 4.3 | 17 | 11.1 | 1 | 2.6 | 2 | 5.7 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 12-B

Occupations of Dickenson County Seniors' Fathers
by Thirteen Classifications

| Occupational Classifications | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 1 | 1.1 | 5 | 6.3 | 2 | 4.8 |
| Mining | 49 | 55.1 | 41 | 51.9 | 22 | 52.4 |
| Construction | 5 | 5.6 | 3 | 3.8 | 5 | 11.9 |
| Manufacturing | 0 | 0.0 | 3 | 3.8 | 2 | 4.8 |
| Transportation, Communication, Other Public Utilities | 5 | 5.6 | 5 | 6.3 | 0 | 0.0 |
| Wholesale and Retail Trade | 7 | 7.9 | 2 | 2.5 | 0 | 0.0 |
| Finance, Insurance, Real Estate | 0 | 0.0 | 1 | 1.3 | 0 | 0.0 |
| Business and Repair Services | 2 | 2.2 | 0 | 0.0 | 1 | 2.4 |
| Personal Services | 0 | 0.0 | 2 | 2.5 | 1 | 2.4 |
| Entertainment and Recreation Services | 0 | 0.0 | 1 | 1.3 | 0 | 0.0 |
| Professional and Related Services | 6 | 6.7 | 3 | 3.8 | 1 | 2.4 |
| Public Administration | 1 | 1.1 | 1 | 1.3 | 0 | 0.0 |
| Unemployed | 6 | 6.7 | 11 | 13.9 | 6 | 14.3 |
| No Response | 7 | 7.9 | 1 | 1.3 | 2 | 4.8 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 12-C

Occupations of Russell County Seniors' Fathers by Thirteen Classifications

| Occupational Classification | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 9 | 11.1 | 4 | 4.2 | 16 | 12.1 |
| Mining | 44 | 54.3 | 45 | 46.9 | 29 | 22.0 |
| Construction | 6 | 7.4 | 6 | 6.3 | 22 | 16.7 |
| Manufacturing | 0 | 0.0 | 1 | 1.0 | 13 | 9.8 |
| Transportation, Communication, Other Public Utilities | 4 | 4.9 | 7 | 7.3 | 8 | 6.1 |
| Wholesale and Retail Trade | 2 | 2.5 | 4 | 4.2 | 5 | 3.8 |
| Finance, Insurance, Real Estate | 1 | 1.2 | 0 | 0.0 | 2 | 1.5 |
| Business and Repair Services | 0 | 0.0 | 3 | 3.1 | 6 | 4.5 |
| Personal Services | 0 | 0.0 | 4 | 4.2 | 3 | 2.3 |
| Entertainment and Recreation Services | 0 | 0.0 | 0 | 0.0 | 2 | 1.5 |
| Professional and Related Services | 2 | 2.5 | 2 | 2.1 | 7 | 5.3 |
| Public Administration | 3 | 3.7 | 1 | 1.0 | 6 | 4.5 |
| Unemployed | 4 | 4.9 | 10 | 10.4 | 8 | 6.1 |
| No Response | 6 | 7.4 | 9 | 9.4 | 5 | 3.8 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 12-D

Occupations of Tazewell County Seniors' Fathers by Thirteen Classifications

| Occupational Classification | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 1 | 0.9 | 0 | 0.0 | 3 | 1.4 | 9 | 6.3 |
| Mining | 19 | 16.8 | 20 | 54.1 | 96 | 45.1 | 43 | 30.1 |
| Construction | 5 | 4.4 | 0 | 0.0 | 19 | 8.9 | 11 | 7.7 |
| Manufacturing | 7 | 6.2 | 1 | 2.7 | 15 | 7.0 | 3 | 2.1 |
| Transportation, Communication, or Other Public Utilities | 16 | 14.2 | 0 | 0.0 | 4 | 1.9 | 11 | 7.7 |
| Wholesale and Retail Trade | 14 | 12.4 | 1 | 2.7 | 11 | 5.2 | 6 | 4.2 |
| Finance, Insurance, Real Estate | 4 | 3.5 | 0 | 0.0 | 5 | 2.3 | 3 | 2.1 |
| Business and Repair Services | 15 | 13.3 | 2 | 5.4 | 12 | 5.6 | 10 | 7.0 |
| Personal Services | 1 | 0.9 | 1 | 2.7 | 1 | 0.5 | 0 | 0.0 |
| Entertainment and Recreation Services | 0 | 0.0 | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 |
| Professional and Related Services | 11 | 9.7 | 0 | .0 | 8 | 3.8 | 13 | 9.1 |
| Public Administration | 3 | 2.7 | 1 | 2.7 | 4 | 1.9 | 2 | 1.4 |
| Unemployed | 6 | 5.3 | 11 | 29.7 | 19 | 8.9 | 12 | 8.4 |
| No Response | 11 | 9.7 | 0 | 0.0 | 15 | 7.0 | 17 | 11.9 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 13-A

Occupations of Buchanan County Seniors' Mothers by Fourteen Classifications

| Occupational Classifications | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mining | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Construction | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Manufacturing | 4 | 9.5 | 0 | 0.0 | 6 | 3.9 | 1 | 2.6 | 0 | 0.0 |
| Transportation, Communication, Other Public Utilities | 0 | 0.0 | 1 | 2.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Wholesale and Retail Trade | 0 | 0.0 | 0 | 0.0 | 9 | 5.9 | 1 | 2.6 | 2 | 5.7 |
| Finance, Insurance, Real Estate | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 1 | 2.6 | 0 | 0.0 |
| Business and Repair Services | 0 | 0.0 | 1 | 2.1 | 3 | 2.0 | 1 | 2.6 | 0 | 0.0 |
| Personal Services | 2 | 4.8 | 4 | 8.5 | 1 | 0.7 | 2 | 5.3 | 3 | 8.6 |
| Entertainment and Recreation Services | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.6 | 0 | 0.0 |
| Professional and Related Services | 2 | 4.8 | 0 | 0.0 | 10 | 6.5 | 1 | 2.6 | 3 | 8.6 |
| Public Administration | 2 | 4.8 | 3 | 6.4 | 7 | 4.6 | 2 | 5.3 | 2 | 5.7 |
| Housewife | 31 | 73.8 | 36 | 76.6 | 98 | 64.1 | 23 | 60.5 | 22 | 62.9 |
| Unemployed | 0 | 0.0 | 1 | 2.1 | 2 | 1.3 | 3 | 7.9 | 0 | 0.0 |
| No Response | 1 | 2.4 | 1 | 2.1 | 15 | 9.8 | 2 | 5.3 | 3 | 8.6 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 13-B

Occupations of Dickenson County Seniors' Mothers by Fourteen Classifications

| Occupational Classifications | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mining | 0 | 0.0 | 4 | 5.1 | 0 | 0.0 |
| Construction | 0 | 0.0 | 1 | 1.3 | 0 | 0.0 |
| Manufacturing | 1 | 1.1 | 2 | 2.5 | 3 | 7.1 |
| Transportation, Communication, Other Public Utilities | 3 | 3.4 | 0 | 0.0 | 0 | 0.0 |
| Wholesale and Retail Trade | 7 | 7.9 | 4 | 5.1 | 1 | 2.4 |
| Finance, Insurance, Real Estate | 1 | 1.1 | 0 | 0.0 | 1 | 2.4 |
| Business and Repair Services | 0 | 0.0 | 1 | 1.3 | 0 | 0.0 |
| Personal Services | 2 | 2.2 | 3 | 3.8 | 1 | 2.4 |
| Entertainment and Recreation Services | 0 | 0.0 | 2 | 2.5 | 0 | 0.0 |
| Professional and Related Services | 7 | 7.9 | 3 | 3.8 | 1 | 2.4 |
| Public Administration | 4 | 4.5 | 2 | 2.5 | 3 | 7.1 |
| Housewife | 59 | 66.3 | 50 | 63.3 | 29 | 69.0 |
| Unemployed | 2 | 2.2 | 5 | 6.3 | 0 | 0.0 |
| No Response | 3 | 3.4 | 2 | 2.5 | 3 | 7.1 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 13-C

Occupations of Russell County Seniors' Mothers by Fourteen Classifications

| Occupational Classification | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mining | 0 | 0.0 | 1 | 1.0 | 0 | 0.0 |
| Construction | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Manufacturing | 8 | 9.9 | 5 | 5.2 | 22 | 16.7 |
| Transportation, Communications, Other Public Utilities | 1 | 1.2 | 3 | 3.1 | 3 | 2.3 |
| Wholesale and Retail Trade | 1 | 1.2 | 1 | 1.0 | 6 | 4.5 |
| Finance, Insurance, Real Estate | 0 | 0.0 | 0 | 0.0 | 3 | 2.3 |
| Business and Repair Services | 1 | 1.2 | 1 | 1.0 | 1 | 0.8 |
| Personal Services | 4 | 4.9 | 4 | 4.2 | 6 | 4.5 |
| Entertainment and Recreation Services | 1 | 1.2 | 0 | 0.0 | 1 | 0.8 |
| Professional and Related Services | 2 | 2.5 | 2 | 2.1 | 8 | 6.1 |
| Public Administration | 4 | 4.9 | 6 | 6.3 | 3 | 2.3 |
| Housewife | 57 | 70.4 | 64 | 66.7 | 70 | 53.0 |
| Unemployed | 0 | 0.0 | 1 | 1.0 | 2 | 2.1 |
| No Response | 2 | 2.5 | 8 | 8.3 | 7 | 5.3 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 13-D

Occupations of Tazewell County Seniors' Mothers by Fourteen Classifications

| Occupational Classification | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 1.4 |
| Mining | 0 | 0.0 | 0 | 0.0 | 1 | 0.5 | 1 | 0.7 |
| Construction | 0 | 0.0 | 0 | 0.0 | 2 | 0.9 | 1 | 0.7 |
| Manufacturing | 4 | 3.5 | 0 | 0.0 | 10 | 4.7 | 4 | 2.8 |
| Transportation, Communications, or Other Public Utilities | 2 | 1.8 | 0 | 0.0 | 3 | 1.4 | 4 | 2.8 |
| Wholesale and Retail Trade | 9 | 8.0 | 2 | 5.4 | 10 | 4.7 | 9 | 6.3 |
| Finance, Insurance, Real Estate | 1 | 0.9 | 0 | 0.0 | 4 | 1.9 | 1 | 0.7 |
| Business and Repair Services | 11 | 9.7 | 0 | 0.0 | 3 | 1.4 | 2 | 1.4 |
| Personal Services | 9 | 8.0 | 0 | 0.0 | 13 | 6.1 | 7 | 4.9 |
| Entertainment and Recreation Services | 1 | 0.9 | 0 | 0.0 | 1 | 0.5 | 1 | 0.7 |
| Professional and Related Services | 16 | 14.2 | 0 | 0.0 | 18 | 8.5 | 10 | 7.0 |
| Public Administration | 3 | 2.7 | 2 | 5.4 | 15 | 7.0 | 9 | 6.3 |
| Housewife | 51 | 45.1 | 33 | 89.2 | 122 | 57.3 | 79 | 55.2 |
| Unemployed | 2 | 1.8 | 0 | 0.0 | 2 | 0.9 | 5 | 3.5 |
| No Response | 4 | 3.5 | 0 | 0.0 | 1 | 4.2 | 8 | 5.6 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 14-A

Occupational Levels of Fathers in Buchanan County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Council | 42 | 12 | 28.6 | 5 | 11.9 | 4 | 9.5 | 21 | 50.0 |
| Garden | 47 | 12 | 25.5 | 5 | 10.6 | 5 | 10.6 | 25 | 53.2 |
| Grundy | 153 | 28 | 18.3 | 30 | 19.6 | 28 | 18.3 | 67 | 43.8 |
| Hurley | 38 | 11 | 28.9 | 7 | 18.4 | 2 | 5.3 | 18 | 47.4 |
| Whitewood | 35 | 5 | 14.3 | 2 | 5.7 | 2 | 5.7 | 26 | 74.3 |
| Total | 315 | 68 | 21.6 | 49 | 15.6 | 41 | 13.0 | 157 | 49.8 |

*Includes no response and unemployed.

Table 14-B

Occupational Levels of Fathers in Dickenson County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Clintwood | 89 | 13 | 14.6 | 21 | 23.6 | 9 | 10.1 | 46 | 51.7 |
| Haysi | 79 | 12 | 15.2 | 16 | 20.3 | 8 | 10.1 | 43 | 54.4 |
| Irvinton | 42 | 8 | 19.0 | 4 | 9.5 | 4 | 9.5 | 26 | 61.9 |
| Total | 210 | 33 | 15.6 | 41 | 19.5 | 21 | 10.0 | 115 | 54.8 |

*Includes no response and unemployed.

Table 14-C

Occupational Levels of Fathers in Russell County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Castlewood | 81 | 10 | 12.3 | 9 | 11.1 | 12 | 14.8 | 50 | 61.7 |
| Honaker | 96 | 19 | 19.8 | 16 | 16.7 | 8 | 8.3 | 53 | 55.2 |
| Lebanon | 132 | 13 | 9.8 | 29 | 22.0 | 15 | 11.4 | 75 | 56.8 |
| Total | 309 | 42 | 13.6 | 54 | 17.5 | 35 | 11.3 | 178 | 57.6 |

*Includes no response and unemployed.

Table 14-D

Occupational Levels of Fathers in Tazewell County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Graham | 113 | 17 | 15.0 | 14 | 12.4 | 22 | 19.5 | 60 | 53.1 |
| Pocahontas | 37 | 11 | 29.7 | 2 | 5.4 | 6 | 16.2 | 18 | 48.6 |
| Richlands | 213 | 34 | 16.0 | 35 | 16.4 | 40 | 18.8 | 104 | 48.8 |
| Tazewell | 143 | 29 | 20.3 | 25 | 17.5 | 21 | 14.7 | 68 | 47.6 |
| Total | 506 | 91 | 18.0 | 76 | 15.0 | 89 | 17.6 | 250 | 49.4 |

*Includes no response and unemployed.

Table 15-A

Occupational Levels of Mothers in Buchanan County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Council | 42 | 32 | 76.2 | 1 | 2.4 | 1 | 2.4 | 8 | 19.0 |
| Garden | 47 | 38 | 80.9 | 1 | 2.1 | 0 | 0.0 | 8 | 17.0 |
| Grundy | 153 | 115 | 75.2 | 5 | 3.3 | 7 | 4.6 | 26 | 17.0 |
| Hurley | 38 | 29 | 76.3 | 2 | 5.3 | 3 | 7.9 | 4 | 10.5 |
| Whitewood | 35 | 25 | 71.4 | 1 | 2.9 | 3 | 8.6 | 6 | 17.1 |
| Total | 315 | 239 | 75.9 | 10 | 3.1 | 14 | 4.4 | 52 | 16.5 |

Table 15-B

Occupational Levels of Mothers in Dickenson County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Clintwood | 89 | 64 | 71.9 | 4 | 4.5 | 6 | 6.7 | 15 | 16.9 |
| Haysi | 79 | 57 | 72.2 | 6 | 7.6 | 5 | 6.3 | 11 | 13.9 |
| Irvinton | 42 | 32 | 76.2 | 1 | 2.4 | 1 | 2.4 | 8 | 19.0 |
| Total | 210 | 153 | 72.9 | 11 | 5.2 | 12 | 5.7 | 34 | 16.2 |

*Includes no response, housewife, and unemployed.

Table 15-C

Occupational Levels of Mothers in Russell County

| School | N | Others* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Castlewood | 81 | 59 | 72.8 | 0 | 0.0 | 3 | 3.7 | 19 | 23.5 |
| Honaker | 96 | 73 | 76.0 | 4 | 4.2 | 3 | 3.1 | 16 | 16.7 |
| Lebanon | 132 | 79 | 59.8 | 3 | 2.3 | 3 | 2.3 | 47 | 35.6 |
| Total | 309 | 211 | 68.3 | 7 | 2.3 | 9 | 2.9 | 82 | 26.5 |

*Includes no response, housewife, and unemployed.

Table 15-D

Occupational Levels of Mothers in Tazewell County

| School | N | Other* | | Owner | | Manager | | Laborer | |
|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % |
| Graham | 113 | 57 | 50.4 | 3 | 2.7 | 9 | 8.0 | 44 | 38.9 |
| Pocahontas | 37 | 33 | 89.2 | 1 | 2.7 | 0 | 0.0 | 3 | 8.1 |
| Richlands | 213 | 133 | 62.4 | 10 | 4.7 | 11 | 5.2 | 59 | 27.7 |
| Tazewell | 143 | 92 | 64.3 | 3 | 2.1 | 9 | 6.3 | 39 | 27.3 |
| Total | 506 | 315 | 62.2 | 17 | 3.4 | 29 | 5.7 | 145 | 28.7 |

*Includes no response, housewife, and unemployed.

Table 16-A

Frequency of Four Levels of Occupations
for Buchanan County Seniors'
Fathers and Mothers

| Level of Occupation | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| High Level (White Collar) | 39 | 14.3 | 50 | 18.3 |
| Low Level (Blue Collar) | 197 | 72.2 | 23 | 8.4 |
| Unemployed | 37 | 13.6 | 0 | 0.0 |
| Housewife | 0 | 0.0 | 200 | 73.3 |
| Total | 273 | 100.0 | 273 | 100.0 |

Table 16-B

Frequency of Four Levels of Occupations
for Dickenson County Seniors'
Fathers and Mothers

| Level of Occupation | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| High Level (White Collar) | 26 | 13.8 | 35 | 18.6 |
| Low Level (Blue Collar) | 141 | 75.0 | 20 | 10.6 |
| Unemployed | 21 | 11.2 | 0 | 0.0 |
| Housewife | 0 | 0.0 | 133 | 70.7 |
| Total | 188 | 100.0 | 188 | 100.0 |

Table 16-C

Frequency of Four Levels of Occupations
for Russell County Seniors'
Fathers and Mothers

| Level of Occupation | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| High Level (White Collar) | 46 | 16.6 | 38 | 13.7 |
| Low Level (Blue Collar) | 212 | 76.5 | 56 | 20.2 |
| Unemployed | 19 | 6.9 | 0 | 0.0 |
| Housewife | 0 | 0.0 | 183 | 66.1 |
| Total | 277 | 100.0 | 277 | 100.0 |

Table 16-D

Frequency of Four Levels of Occupations
for Tazewell County Seniors'
Fathers and Mothers

| Level of Occupation | Fathers | | Mothers | |
|---|---|---|---|---|
| | # | % | # | % |
| High Level (White Collar) | 122 | 27.4 | 122 | 27.4 |
| Low Level (Blue Collar) | 281 | 63.0 | 57 | 12.8 |
| Unemployed | 43 | 9.6 | 0 | 0.0 |
| Housewife | 0 | 0.0 | 267 | 59.9 |
| Total | 446 | 100.0 | 446 | 100.0 |

Table 17-A

Intended Occupations of Buchanan County Seniors

| Occupational Categories | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 1 | 2.4 | 1 | 2.1 | 4 | 2.6 | 0 | 0.0 | 0 | 0.0 |
| Mining | 10 | 23.8 | 12 | 25.5 | 26 | 17.0 | 10 | 26.3 | 7 | 20.0 |
| Construction | 2 | 4.8 | 4 | 8.5 | 7 | 4.6 | 1 | 2.6 | 2 | 5.7 |
| Manufacturing | 4 | 9.5 | 1 | 2.1 | 3 | 2.0 | 0 | 0.0 | 1 | 2.9 |
| Transportation, Communication, and Other Public Utilities | 0 | 0.0 | 1 | 2.1 | 5 | 3.3 | 3 | 7.9 | 0 | 0.0 |
| Wholesale and Retail Trade | 2 | 4.8 | 4 | 10.6 | 6 | 3.9 | 1 | 2.6 | 0 | 0.0 |
| Finance, Insurance, Real Estate | 1 | 2.4 | 1 | 2.1 | 8 | 5.2 | 0 | 0.0 | 1 | 2.9 |
| Business and Repair Services | 6 | 14.3 | 3 | 6.4 | 12 | 7.8 | 5 | 13.2 | 6 | 17.1 |
| Personal Services | 5 | 11.9 | 7 | 14.9 | 12 | 7.8 | 7 | 18.4 | 6 | 17.1 |
| Entertainment and Recreation Services | 2 | 4.8 | 0 | 0.0 | 5 | 3.3 | 0 | 0.0 | 0 | 0.0 |
| Professional and Related Services | 5 | 11.9 | 6 | 12.8 | 28 | 18.3 | 3 | 7.9 | 7 | 20.0 |
| Public Administration | 3 | 7.1 | 4 | 8.5 | 11 | 7.2 | 3 | 7.9 | 4 | 11.4 |
| No Response | 1 | 2.4 | 2 | 4.3 | 26 | 17.0 | 5 | 13.2 | 1 | 2.9 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 17-B

Intended Occupations of Dickenson County Seniors

| Occupational Category | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 3 | 2.2 | 2 | 2.5 | 3 | 7.1 |
| Mining | 27 | 30.3 | 21 | 26.6 | 7 | 16.7 |
| Construction | 5 | 5.6 | 6 | 7.6 | 8 | 19.0 |
| Manufacturing | 1 | 1.1 | 3 | 3.8 | 3 | 4.8 |
| Transportation, Communication, and Other Public Utilities | 4 | 4.5 | 1 | 1.3 | 4 | 9.5 |
| Wholesale and Retail Trade | 8 | 9.0 | 1 | 1.3 | 2 | 4.8 |
| Finance, Insurance, Real Estate | 1 | 1.1 | 1 | 1.3 | 0 | 0.0 |
| Business and Repair Services | 5 | 5.6 | 8 | 10.1 | 2 | 4.8 |
| Personal Services | 6 | 6.7 | 9 | 11.4 | 3 | 7.1 |
| Entertainment and Recreation Services | 4 | 4.5 | 2 | 2.5 | 2 | 4.8 |
| Professional and Related Services | 15 | 16.9 | 7 | 8.9 | 2 | 4.8 |
| Public Administration | 5 | 5.6 | 13 | 16.5 | 5 | 11.9 |
| No Response | 6 | 6.7 | 5 | 6.3 | 2 | 4.8 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 17-C

Intended Occupations of Russell County Seniors

| Occupational Category | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 4 | 4.9 | 4 | 4.2 | 3 | 2.3 |
| Mining | 16 | 19.8 | 21 | 21.9 | 24 | 18.2 |
| Construction | 7 | 8.6 | 5 | 5.2 | 11 | 8.3 |
| Manufacturing | 3 | 3.7 | 4 | 4.2 | 5 | 3.8 |
| Transportation, Communication, Other Public Utilities | 3 | 3.7 | 7 | 7.3 | 8 | 6.1 |
| Wholesale and Retail Trade | 0 | 0.0 | 3 | 3.1 | 3 | 2.3 |
| Finance, Insurance, Real Estate | 3 | 3.7 | 1 | 1.0 | 3 | 2.3 |
| Business and Repair Services | 14 | 17.3 | 5 | 5.2 | 18 | 13.6 |
| Personal Services | 10 | 12.3 | 12 | 12.5 | 9 | 6.8 |
| Entertainment and Recreation Services | 0 | 0.0 | 4 | 4.2 | 5 | 3.8 |
| Professional and Related Services | 18 | 22.2 | 15 | 15.6 | 29 | 22.0 |
| Public Administration | 2 | 2.5 | 10 | 10.4 | 8 | 6.1 |
| No Response | 1 | 1.2 | 5 | 5.2 | 6 | 4.5 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 17-D

Intended Occupations of Tazewell County Seniors

| Occupational Category | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Agriculture, Forestry, and Fisheries | 4 | 3.5 | 1 | 2.7 | 3 | 1.4 | 4 | 2.8 |
| Mining | 7 | 6.2 | 11 | 29.7 | 46 | 21.6 | 13 | 9.1 |
| Construction | 6 | 5.3 | 0 | 0.0 | 9 | 4.2 | 11 | 7.7 |
| Manufacturing | 1 | 0.9 | 5 | 13.5 | 3 | 1.4 | 5 | 3.5 |
| Transportation, Communication, or Other Public Utilities | 5 | 4.4 | 0 | 0.0 | 6 | 2.8 | 5 | 3.5 |
| Wholesale and Retail Trade | 10 | 8.8 | 1 | 2.7 | 18 | 8.5 | 8 | 5.6 |
| Finance, Insurance, Real Estate | 3 | 2.7 | 2 | 5.4 | 7 | 3.3 | 5 | 3.5 |
| Business and Repair Services | 20 | 17.7 | 3 | 8.1 | 21 | 9.9 | 16 | 11.2 |
| Personal Services | 5 | 4.4 | 3 | 8.1 | 12 | 5.6 | 12 | 8.4 |
| Entertainment and Recreation Services | 4 | 3.5 | 0 | 0.0 | 3 | 1.4 | 4 | 2.8 |
| Professional and Related Services | 38 | 33.6 | 5 | 13.5 | 66 | 31.0 | 42 | 29.4 |
| Public Administration | 5 | 4.4 | 5 | 13.5 | 8 | 3.8 | 9 | 6.3 |
| No Response | 5 | 4.4 | 1 | 2.7 | 11 | 5.2 | 9 | 6.3 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 18-A

Level of Education Buchanan County Seniors Expect to Achieve

| Levels of Education | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Graduate School Degree | 3 | 9.5 | 2 | 4.3 | 17 | 11.1 | 1 | 2.6 | 4 | 11.4 |
| Attend Graduate School | 0 | 0.0 | 1 | 2.1 | 2 | 1.3 | 0 | 0.0 | 1 | 2.9 |
| Receive College Degree | 5 | 11.9 | 6 | 12.8 | 25 | 16.3 | 2 | 5.3 | 6 | 17.1 |
| Attend College | 5 | 11.9 | 4 | 8.5 | 19 | 12.4 | 0 | 0.0 | 5 | 14.3 |
| Arrend Technical, Special School | 4 | 9.5 | 9 | 19.1 | 11 | 7.2 | 3 | 7.9 | 2 | 5.7 |
| Receive High School Diploma | 23 | 54.8 | 21 | 44.7 | 67 | 43.8 | 32 | 84.2 | 16 | 45.7 |
| No Response | 1 | 2.4 | 4 | 8.5 | 12 | 7.8 | 0 | 0.0 | 1 | 2.9 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 18-B

Level of Education Dickenson County Seniors Expect to Achieve

| Levels of Education | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Graduate School Degree | 7 | 7.9 | 6 | 7.6 | 1 | 2.4 |
| Attend Graduate School | 0 | 0.0 | 3 | 3.8 | 0 | 0.0 |
| Receive College Degree | 18 | 20.2 | 14 | 17.7 | 7 | 16.7 |
| Attend College | 7 | 7.9 | 8 | 10.1 | 2 | 4.8 |
| Attend Technical, Special School | 13 | 14.6 | 6 | 7.6 | 3 | 7.1 |
| Receive High School Diploma | 41 | 46.1 | 38 | 48.1 | 29 | 69.0 |
| No response | 3 | 3.4 | 4 | 5.1 | 0 | 0.0 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table18-C

Level of Education Russell County Seniors Expect to Achieve

| Level of Education | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Graduate School Degree | 4 | 4.9 | 11 | 11.5 | 11 | 8.3 |
| Attend Graduate School | 1 | 1.2 | 3 | 3.1 | 1 | 0.8 |
| Receive College Degree | 24 | 29.6 | 17 | 17.7 | 29 | 22.0 |
| Attend College | 13 | 16.0 | 9 | 9.4 | 18 | 13.6 |
| Attend Technical, Special School | 6 | 7.4 | 5 | 5.2 | 15 | 11.4 |
| Receive High School Diploma | 33 | 40.7 | 47 | 49.0 | 54 | 40.9 |
| No Response | 0 | 0.0 | 4 | 4.2 | 4 | 3.0 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 18-D

Level of Education Tazewell County Seniors Expect to Achieve

| Levels of Education | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Graduate School Degree | 12 | 10.6 | 1 | 2.7 | 14 | 6.6 | 14 | 9.8 |
| Attend Graduate School | 0 | 0.0 | 0 | 0.0 | 3 | 1.4 | 1 | 0.7 |
| Receive College Degree | 35 | 31.0 | 6 | 16.2 | 47 | 22.1 | 44 | 30.8 |
| Attend College | 16 | 14.2 | 2 | 5.4 | 43 | 20.2 | 18 | 12.6 |
| Attend Technical, Special School | 15 | 13.3 | 6 | 16.2 | 16 | 7.5 | 17 | 11.9 |
| Receive High School Diploma | 33 | 29.2 | 21 | 56.8 | 85 | 39.9 | 45 | 31.5 |
| No Response | 2 | 1.8 | 1 | 2.7 | 5 | 2.3 | 4 | 2.8 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 19-A

Reported Levels of Education Buchanan County Seniors Should Achieve

| Levels of Education | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Graduate School Degree | 3 | 7.1 | 9 | 19.1 | 17 | 11.1 | 3 | 7.9 | 2 | 5.7 |
| Attend Graduate School | 1 | 2.4 | 0 | 0.0 | 3 | 2.0 | 1 | 2.6 | 2 | 5.7 |
| Receive College Degree | 10 | 23.8 | 18 | 38.3 | 52 | 34.0 | 8 | 21.1 | 19 | 54.3 |
| Attend College | 11 | 26.2 | 10 | 21.3 | 15 | 9.8 | 10 | 26.3 | 5 | 14.3 |
| Attend Technical, Special School | 7 | 16.7 | 4 | 8.5 | 14 | 9.2 | 4 | 10.5 | 5 | 14.3 |
| Receive High School Diploma | 8 | 19.0 | 4 | 8.5 | 35 | 22.9 | 8 | 21.1 | 2 | 5.7 |
| No Response | 2 | 4.8 | 2 | 4.3 | 17 | 11.1 | 4 | 10.5 | 0 | 0.0 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 19-B

Reported Levels of Education Dickenson County Seniors Should Achieve

| Levels of Education | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Graduate School Degree | 8 | 9.0 | 9 | 11.4 | 1 | 2.4 |
| Attend Graduate School | 1 | 1.1 | 1 | 1.3 | 0 | 0.0 |
| Receive College Degree | 24 | 17.0 | 23 | 29.1 | 13 | 31.0 |
| Attend College | 19 | 21.3 | 11 | 13.9 | 9 | 21.4 |
| Attend Technical, Special School | 17 | 19.1 | 18 | 22.8 | 8 | 19.0 |
| Receive High School Diploma | 13 | 14.6 | 13 | 16.5 | 11 | 26.2 |
| No Response | 7 | 7.9 | 4 | 5.1 | 0 | 0.0 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 19-C

Reported Level of Education Russell County Seniors Should Achieve

| Level of Education | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Graduate School Degree | 3 | 3.7 | 11 | 11.5 | 9 | 6.8 |
| Attend Graduate School | 2 | 2.5 | 2 | 2.1 | 4 | 3.0 |
| Receive College Degree | 36 | 44.4 | 45 | 46.9 | 49 | 37.1 |
| Attend College | 10 | 12.3 | 12 | 12.5 | 24 | 18.2 |
| Attend Technical, Special School | 12 | 14.8 | 12 | 12.5 | 17 | 12.9 |
| Receive High School Diploma | 13 | 16.0 | 8 | 8.3 | 21 | 15.9 |
| No Response | 5 | 6.2 | 6 | 6.3 | 8 | 6.1 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 19-D

Reported Levels of Education Tazewell County Seniors Should Achieve

| Levels of Education | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Graduate School Degree | 21 | 18.6 | 1 | 2.7 | 16 | 7.5 | 13 | 9.1 |
| Attend Graduate School | 1 | 0.9 | 1 | 2.7 | 4 | 1.9 | 4 | 2.8 |
| Receive College Degree | 33 | 29.2 | 9 | 24.3 | 66 | 31.0 | 47 | 32.9 |
| Attend College | 21 | 18.6 | 8 | 21.6 | 49 | 23.0 | 28 | 19.6 |
| Attend Technical, Special School | 20 | 17.7 | 8 | 21.6 | 28 | 13.1 | 21 | 14.7 |
| Receive High School Diploma | 10 | 8.8 | 8 | 21.6 | 32 | 15.0 | 21 | 14.7 |
| No Response | 7 | 6.2 | 2 | 5.4 | 18 | 8.5 | 9 | 6.3 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 20-A

Post-High School Plans of Buchanan County Seniors

| Plans | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Attend a Two-Year College | 3 | 7.1 | 10 | 21.3 | 14 | 9.2 | 0 | 0.0 | 9 | 25.7 |
| Attend a Four-Year College | 4 | 9.5 | 3 | 6.4 | 34 | 22.2 | 1 | 2.6 | 4 | 11.4 |
| Attend Other Type of Post-Secondary School | 2 | 4.8 | 3 | 6.4 | 4 | 2.6 | 2 | 5.3 | 1 | 2.9 |
| Enter Military Service | 0 | 0.0 | 1 | 2.1 | 2 | 1.3 | 0 | 0.0 | 1 | 2.9 |
| Get a Job | 25 | 59.5 | 20 | 42.6 | 52 | 34.0 | 20 | 52.6 | 11 | 31.4 |
| Travel | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Get Married (No Outside Job) | 2 | 4.8 | 5 | 10.6 | 12 | 7.8 | 3 | 7.9 | 3 | 8.6 |
| No Definite Plans | 1 | 2.4 | 1 | 2.1 | 15 | 9.8 | 11 | 28.9 | 4 | 11.4 |
| Do Not Know | 3 | 7.1 | 3 | 6.4 | 7 | 4.6 | 0 | 0.0 | 0 | 0.0 |
| No Response | 2 | 4.8 | 1 | 2.1 | 12 | 7.8 | 1 | 2.6 | 2 | 5.7 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 20-B

Post-High School Plans of Dickenson County Seniors

| Plans | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Attend a Two-Year College | 10 | 11.2 | 7 | 8.9 | 2 | 4.8 |
| Attend a Four-Year College | 14 | 15.7 | 12 | 15.2 | 5 | 11.9 |
| Attend Other Type of Post-Secondary School | 4 | 4.5 | 3 | 3.8 | 2 | 4.8 |
| Enter Military Service | 2 | 2.2 | 2 | 2.5 | 2 | 4.8 |
| Get a Job | 34 | 38.2 | 32 | 40.5 | 25 | 59.5 |
| Travel | 1 | 1.1 | 5 | 6.3 | 0 | 0.0 |
| Get Married (No Outside Job) | 6 | 6.7 | 7 | 8.9 | 3 | 7.1 |
| No Definite Plans | 11 | 12.4 | 5 | 6.3 | 2 | 4.8 |
| Do Not Know | 4 | 4.5 | 4 | 5.1 | 1 | 2.4 |
| No Response | 3 | 3.4 | 2 | 2.5 | 0 | 0.0 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 20-C

Post-High School Plans of Russell County Seniors

| Plans | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Attend a Two-Year College | 18 | 22.2 | 20 | 20.8 | 26 | 19.7 |
| Attend a Four-Year College | 16 | 19.8 | 10 | 10.4 | 15 | 11.4 |
| Attend Other Type of Post-Secondary School | 1 | 1.2 | 2 | 2.1 | 2 | 1.5 |
| Enter Military Service | 1 | 1.2 | 0 | 0.0 | 6 | 4.5 |
| Get a Job | 32 | 39.5 | 41 | 42.7 | 63 | 47.7 |
| Travel | 1 | 1.2 | 0 | 0.0 | 2 | 1.5 |
| Get Married (No Outside Job) | 4 | 4.9 | 7 | 7.3 | 2 | 1.5 |
| No Definite Plans | 5 | 6.2 | 6 | 6.3 | 5 | 3.8 |
| Do Not Know | 2 | 2.5 | 5 | 5.2 | 7 | 5.3 |
| No Response | 1 | 1.2 | 5 | 5.2 | 4 | 3.0 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 20-D

Post-High School Plans of Tazewell County Seniors

| Plans | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Attend a Two-Year College | 16 | 14.2 | 2 | 5.4 | 42 | 19.7 | 31 | 21.7 |
| Attend a Four-Year College | 35 | 31.0 | 4 | 10.8 | 36 | 16.9 | 42 | 29.4 |
| Attend Other Type of Post-Secondary School | 4 | 3.5 | 1 | 2.7 | 8 | 3.8 | 7 | 4.9 |
| Enter Military Service | 7 | 6.2 | 1 | 2.7 | 8 | 3.8 | 9 | 6.3 |
| Get a Job | 33 | 29.2 | 18 | 48.6 | 82 | 38.5 | 40 | 28.0 |
| Travel | 1 | 0.9 | 2 | 5.4 | 3 | 1.4 | 3 | 2.1 |
| Get Married (No Outside Job) | 3 | 2.7 | 2 | 5.4 | 6 | 2.8 | 1 | 0.7 |
| No Definite Plans | 7 | 6.2 | 6 | 16.2 | 8 | 3.8 | 5 | 3.5 |
| Do Not Know | 3 | 2.7 | 1 | 2.7 | 9 | 4.2 | 3 | 2.1 |
| No Response | 4 | 3.5 | 0 | 0.0 | 11 | 5.2 | 2 | 1.4 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 21-A

When Buchanan County Seniors Decided Post-High School Plans

| Time | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Have Not Yet Decided | 9 | 21.4 | 13 | 27.7 | 46 | 30.1 | 18 | 47.4 | 10 | 28.6 |
| Decided This School Year (Twelfth Grade) | 12 | 28.6 | 23 | 48.9 | 55 | 35.9 | 11 | 28.9 | 12 | 34.3 |
| Decided in the Eleventh Grade | 13 | 31.0 | 6 | 12.8 | 22 | 14.4 | 1 | 2.6 | 8 | 22.9 |
| Decided Before the Eleventh Grade | 8 | 19.0 | 5 | 10.6 | 26 | 17.0 | 7 | 18.4 | 5 | 14.3 |
| No Response | 0 | 0.0 | 0 | 0.0 | 4 | 2.6 | 1 | 2.6 | 0 | 0.0 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 21-B

When Dickenson County Seniors Decided Post-High School Plans

| Time | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Have Not Yet Decided | 31 | 34.8 | 30 | 38.0 | 12 | 28.6 |
| Decided This School Year (Twelfth Grade) | 34 | 38.2 | 28 | 35.4 | 18 | 42.9 |
| Decided in the Eleventh Grade | 11 | 12.4 | 6 | 7.6 | 8 | 19.0 |
| Decided Before the Eleventh Grade | 13 | 14.6 | 15 | 19.0 | 3 | 7.1 |
| No Response | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 21-C

When Russell County Seniors Decided Post-High School Plans

| Time | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Have Not Yet Decided | 21 | 25.9 | 25 | 26.0 | 37 | 28.0 |
| Decided This School Year (Twelfth Grade) | 30 | 37.0 | 39 | 40.6 | 62 | 47.0 |
| Decided in the Eleventh Grade | 12 | 14.8 | 16 | 16.7 | 14 | 10.6 |
| Decided Before the Eleventh Grade | 17 | 21.0 | 15 | 15.6 | 18 | 13.6 |
| No Response | 1 | 1.2 | 1 | 1.0 | 1 | 0.8 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 21-D

When Tazewell County Seniors Decided Post-High School Plans

| Time | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Have Not Yet Decided | 28 | 24.8 | 12 | 32.4 | 50 | 23.5 | 30 | 21.0 |
| Decided This School Year (Twelfth Grade) | 48 | 42.5 | 18 | 48.6 | 106 | 49.8 | 63 | 44.1 |
| Decided in the Eleventh Grade | 15 | 13.3 | 4 | 10.8 | 17 | 8.0 | 23 | 16.1 |
| Decided Before the Eleventh Grade | 21 | 18.6 | 3 | 8.1 | 36 | 16.9 | 27 | 18.9 |
| No Response | 1 | 0.9 | 0 | 0.0 | 4 | 1.9 | 0 | 0.0 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 22-A

Significant People Who Influenced Buchanan County Seniors' Educational Aspirations

| Person | Council | | Garden | | Grundy | | Hurley | | Whitewood | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % |
| Father | 7 | 16.7 | 13 | 27.7 | 34 | 22.2 | 9 | 23.7 | 10 | 28.6 |
| Mother | 15 | 35.7 | 11 | 23.4 | 37 | 24.2 | 14 | 36.8 | 9 | 25.7 |
| Brother | 1 | 2.4 | 3 | 6.4 | 5 | 3.3 | 0 | 0.0 | 0 | 0.0 |
| Sister | 0 | 0.0 | 1 | 2.1 | 5 | 3.3 | 3 | 7.9 | 0 | 0.0 |
| Relative | 0 | 0.0 | 0 | 0.0 | 7 | 4.6 | 2 | 5.3 | 0 | 0.0 |
| Principal | 0 | 0.0 | 1 | 2.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Teacher | 5 | 11.9 | 3 | 6.4 | 11 | 7.2 | 0 | 0.0 | 1 | 2.9 |
| Guidance Counselor | 0 | 0.0 | 3 | 6.4 | 3 | 2.0 | 0 | 0.0 | 0 | 0.0 |
| Friends | 7 | 16.7 | 8 | 17.0 | 8 | 5.2 | 2 | 5.3 | 6 | 17.1 |
| Other | 7 | 16.7 | 4 | 8.5 | 31 | 20.3 | 6 | 15.8 | 9 | 25.7 |
| No Response | 0 | 0.0 | 0 | 0.0 | 12 | 7.8 | 2 | 5.3 | 0 | 0.0 |
| Total | 42 | 100.0 | 47 | 100.0 | 153 | 100.0 | 38 | 100.0 | 35 | 100.0 |

Table 22-B

Significant People Who Influenced Dickenson County Seniors' Educational Aspirations

| Person | Clintwood | | Haysi | | Irvinton | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Father | 18 | 20.2 | 15 | 19.0 | 15 | 35.7 |
| Mother | 23 | 25.8 | 19 | 24.1 | 12 | 28.6 |
| Brother | 4 | 4.5 | 2 | 2.5 | 3 | 7.1 |
| Sister | 6 | 6.7 | 4 | 5.1 | 0 | 0.0 |
| Relative | 3 | 3.4 | 2 | 2.5 | 2 | 4.8 |
| Principal | 0 | 0.0 | 5 | 6.3 | 0 | 0.0 |
| Teacher | 3 | 3.4 | 2 | 2.5 | 1 | 2.4 |
| Guidance Counselor | 1 | 1.1 | 4 | 5.1 | 1 | 2.4 |
| Friends | 4 | 4.5 | 9 | 11.4 | 2 | 4.8 |
| Other | 24 | 27.0 | 14 | 17.7 | 5 | 11.9 |
| No Response | 3 | 3.4 | 3 | 3.8 | 1 | 2.4 |
| Total | 89 | 100.0 | 79 | 100.0 | 42 | 100.0 |

Table 22-C

Significant People Who Influenced Russell County Seniors' Educational Aspirations

| Person | Castlewood | | Honaker | | Lebanon | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Father | 18 | 22.2 | 23 | 24.0 | 33 | 25.0 |
| Mother | 27 | 33.3 | 27 | 28.1 | 43 | 32.6 |
| Brother | 2 | 2.5 | 1 | 1.0 | 5 | 3.8 |
| Sister | 3 | 3.7 | 0 | 0.0 | 4 | 3.0 |
| Relative | 1 | 1.2 | 4 | 4.2 | 7 | 5.3 |
| Principal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Teacher | 6 | 7.4 | 5 | 5.2 | 7 | 5.3 |
| Guidance Counselor | 0 | 0.0 | 1 | 1.0 | 3 | 2.3 |
| Friends | 10 | 12.3 | 7 | 7.3 | 8 | 6.1 |
| Other | 13 | 16.1 | 26 | 27.1 | 19 | 14.4 |
| No Response | 1 | 1.2 | 2 | 2.1 | 3 | 2.3 |
| Total | 81 | 100.0 | 96 | 100.0 | 132 | 100.0 |

Table 22-D

Significant People Who Influenced Tazewell County Seniors' Educational Aspirations

| Person | Graham | | Pocahontas | | Richlands | | Tazewell | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Father | 26 | 23.0 | 9 | 24.3 | 48 | 22.5 | 37 | 25.9 |
| Mother | 26 | 23.0 | 10 | 27.0 | 61 | 28.6 | 37 | 25.9 |
| Brother | 2 | 1.8 | 1 | 2.7 | 3 | 1.4 | 5 | 3.5 |
| Sister | 2 | 1.8 | 1 | 2.7 | 3 | 1.4 | 5 | 3.5 |
| Relative | 3 | 2.7 | 3 | 8.1 | 7 | 3.3 | 6 | 4.2 |
| Principal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Teacher | 11 | 9.7 | 2 | 5.4 | 10 | 4.7 | 4 | 2.8 |
| Guidance Counselor | 3 | 2.7 | 0 | 0.0 | 3 | 1.4 | 6 | 4.2 |
| Friends | 5 | 4.4 | 5 | 13.5 | 21 | 9.9 | 9 | 6.3 |
| Other | 31 | 27.4 | 6 | 16.2 | 51 | 23.9 | 31 | 21.7 |
| No Response | 4 | 3.5 | 0 | 0.0 | 6 | 2.8 | 3 | 2.1 |
| Total | 113 | 100.0 | 37 | 100.0 | 213 | 100.0 | 143 | 100.0 |

Table 50-A

Cell Means for Buchanan County Seniors by Sex by School

| Schools | Senior Males | | | Senior Females | | | M vs F | All Seniors | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. | t | N | Mean | S.D. |
| Council | 20 | 51.150 | 7.073 | 22 | 47.227 | 12.961 | 1.20 | 42 | 49.095 | 10.638 |
| Garden | 23 | 46.652 | 10.940 | 22 | 46.000 | 13.540 | 0.18 | 47 | 46.404 | 11.910 |
| Grundy | 70 | 51.843 | 12.175 | 79 | 48.684 | 13.828 | 1.47 | 153 | 50.301 | 13.070 |
| Hurley | 17 | 48.824 | 11.812 | 20 | 54.150 | 11.918 | 1.36 | 38 | 51.974 | 11.963 |
| Whitewood | 15 | 51.800 | 9.383 | 20 | 57.300 | 13.334 | 1.36 | 35 | 54.943 | 11.968 |
| Total | 145 | 50.566 | 11.125 | 163 | 49.853 | 13.706 | 0.50 | 315 | 50.276 | 12.483 |

Table 50-B

Cell Means for Dickenson County Seniors by Sex by School

| Schools | Senior Males | | | Senior Females | | | M vs F | All Seniors | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. | t | N | Mean | S.D. |
| Clintwood | 42 | 47.738 | 12.277 | 44 | 45.977 | 9.242 | 0.75[a] | 89 | 46.517 | 10.766 |
| Haysi | 37 | 51.568 | 12.593 | 39 | 43.359 | 10.589 | 3.08[b] | 79 | 47.329 | 12.029 |
| Irvinton | 25 | 49.400 | 11.690 | 17 | 48.647 | 11.483 | 0.21[c] | 42 | 49.095 | 11.472 |
| Total | 104 | 49.500 | 12.251 | 100 | 45.410 | 10.250 | 2.58[d] | 210 | 47.3381 | 11.3810 |

[a] $p = .453$.
[b] $p = .003$.
[c] $p = .838$.
[d] $p = .011$.

Table 50-C

Cell Means for Russell County Seniors by Sex by School

| School | Senior Males | | | Senior Females | | | M vs F | All Seniors | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. | t | N | Mean | S.D. |
| Castlewood | 37 | 50.892 | 17.169 | 43 | 53.140 | 9.154 | 0.74[a] | 81 | 51.8395 | 13.5421 |
| Honaker | 41 | 52.122 | 12.199 | 54 | 43.889 | 10.754 | 3.49[b] | 96 | 47.5417 | 12.0315 |
| Lebanon | 66 | 48.697 | 13.154 | 65 | 43.031 | 10.822 | 2.69[c] | 132 | 45.9545 | 12.3176 |
| Total | 144 | 50.2361 | 14.025 | 162 | 46.000 | 11.187 | 2.93[d] | 309 | 47.9903 | 12.7495 |

[a] $p = .459$
[b] $p = .001$
[c] $p = .008$
[d] $p = .004$

Table 50-D

Cell Means for Tazewell County Seniors by Sex by School

| School | Senior Males | | | Senior Females | | | M vs F | All Seniors | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | S.D. | N | Mean | S.D. | t | N | Mean | S.D. |
| Graham | 50 | 48.660 | 13.046 | 60 | 48.683 | 15.328 | 0.01 | 113 | 48.708 | 14.108 |
| Pocahontas | 18 | 45.556 | 10.913 | 19 | 45.105 | 12.970 | 0.11 | 37 | 45.3243 | 11.849 |
| Richlands | 109 | 53.147 | 10.867 | 103 | 50.932 | 13.473 | 1.32 | 213 | 52.023 | 12.215 |
| Tazewell | 73 | 51.740 | 13.539 | 68 | 47.000 | 12.828 | 2.13[a] | 143 | 49.622 | 13.474 |
| Total | 250 | 51.292 | 12.296 | 250 | 48.880 | 13.794 | 2.06[b] | 506 | 50.1146 | 13.098 |

[a] $p = .035$.
[b] $p = .040$.

# APPENDIX D

## FREQUENCY DISTRIBUTION OF RESPONSES TO ATTITUDE STATEMENTS

Frequency Distribution of Responses to Attitude Statements for 643 Senior Males

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 0 | 0.0 | 32 | 5.0 | 118 | 18.4 | 176 | 27.4 | 277 | 43.1 | 40 | 6.2 |
| 2 | 1 | 0.2 | 38 | 5.9 | 212 | 33.0 | 170 | 26.4 | 186 | 28.9 | 36 | 5.6 |
| 3 | 5 | 0.8 | 53 | 8.2 | 187 | 29.1 | 210 | 32.7 | 141 | 21.9 | 47 | 7.3 |
| 4 | 2 | 0.3 | 46 | 7.2 | 165 | 25.7 | 139 | 21.6 | 240 | 37.3 | 51 | 7.9 |
| 5 | 2 | 0.3 | 57 | 8.9 | 127 | 19.8 | 269 | 41.8 | 155 | 24.1 | 33 | 5.1 |
| 6 | 2 | 0.3 | 100 | 15.6 | 249 | 38.7 | 173 | 26.9 | 103 | 16.0 | 16 | 2.5 |
| 7 | 3 | 0.5 | 50 | 7.8 | 147 | 22.9 | 199 | 30.9 | 220 | 34.2 | 24 | 3.7 |
| 8 | 4 | 0.6 | 43 | 6.7 | 153 | 23.8 | 213 | 33.1 | 201 | 31.1 | 29 | 4.5 |
| 9 | 3 | 0.5 | 55 | 8.6 | 145 | 22.6 | 218 | 33.9 | 147 | 22.9 | 75 | 11.7 |
| 10 | 6 | 0.9 | 31 | 4.8 | 100 | 15.6 | 132 | 20.5 | 299 | 46.5 | 75 | 11.7 |
| 11 | 1 | 0.2 | 37 | 5.8 | 159 | 24.7 | 207 | 32.2 | 194 | 30.2 | 45 | 7.0 |
| 12 | 1 | 0.2 | 38 | 5.9 | 181 | 28.1 | 174 | 27.1 | 216 | 33.6 | 33 | 5.1 |
| 13 | 4 | 0.6 | 25 | 3.9 | 97 | 15.1 | 169 | 26.3 | 286 | 44.5 | 62 | 9.6 |
| 14 | 4 | 0.6 | 41 | 6.4 | 168 | 26.1 | 237 | 36.9 | 162 | 25.2 | 31 | 4.8 |
| 15 | 1 | 0.1 | 46 | 7.2 | 135 | 21.0 | 132 | 20.5 | 264 | 41.1 | 65 | 10.1 |
| 16 | 1 | 0.2 | 50 | 7.8 | 184 | 28.6 | 195 | 30.3 | 156 | 24.3 | 57 | 8.9 |
| 17 | 1 | 0.2 | 50 | 7.8 | 225 | 35.0 | 270 | 42.0 | 85 | 13.2 | 12 | 1.9 |
| 18 | 1 | 0.2 | 50 | 7.8 | 239 | 37.2 | 190 | 29.5 | 140 | 21.8 | 23 | 3.6 |
| 19 | 6 | 0.9 | 54 | 8.4 | 202 | 31.4 | 209 | 32.5 | 142 | 22.1 | 30 | 4.7 |
| 20 | 4 | 0.6 | 22 | 3.4 | 80 | 12.4 | 197 | 30.6 | 282 | 43.9 | 58 | 9.0 |
| 21 | 6 | 0.9 | 39 | 6.1 | 150 | 23.3 | 243 | 37.8 | 165 | 25.7 | 40 | 6.2 |
| 22 | 5 | 0.8 | 28 | 4.4 | 128 | 19.9 | 206 | 32.0 | 237 | 36.9 | 39 | 6.1 |
| 23 | 8 | 1.2 | 78 | 12.1 | 158 | 24.6 | 239 | 37.2 | 129 | 20.1 | 31 | 4.8 |
| 24 | 3 | 0.5 | 42 | 6.5 | 172 | 26.7 | 203 | 31.6 | 185 | 28.8 | 38 | 5.9 |
| 25 | 3 | 0.5 | 29 | 4.5 | 148 | 23.0 | 256 | 39.8 | 168 | 26.1 | 39 | 6.1 |

Frequency Distribution of Responses to Attitude Statements for 675 Senior Females

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 3 | 3.7 | 25 | 26.4 | 178 | 22.4 | 151 | 41.8 | 282 | 5.3 | 36 | 0.4 |
| 2 | 3 | 0.4 | 39 | 5.8 | 288 | 42.7 | 155 | 23.0 | 160 | 23.7 | 30 | 4.4 |
| 3 | 4 | 0.6 | 58 | 8.6 | 277 | 41.0 | 205 | 30.4 | 106 | 15.7 | 25 | 3.7 |
| 4 | 4 | 0.6 | 57 | 8.4 | 278 | 41.2 | 127 | 18.8 | 181 | 26.8 | 28 | 4.1 |
| 5 | 7 | 1.0 | 66 | 9.8 | 246 | 36.4 | 227 | 33.6 | 116 | 17.2 | 13 | 1.9 |
| 6 | 5 | 0.7 | 107 | 15.9 | 298 | 44.1 | 171 | 25.3 | 83 | 12.3 | 11 | 1.6 |
| 7 | 3 | 0.4 | 40 | 5.9 | 187 | 27.7 | 195 | 28.9 | 229 | 33.9 | 21 | 3.1 |
| 8 | 4 | 0.6 | 37 | 5.5 | 217 | 32.1 | 226 | 33.5 | 166 | 24.6 | 25 | 3.7 |
| 9 | 1 | 0.1 | 72 | 10.7 | 184 | 27.3 | 212 | 31.4 | 147 | 21.8 | 59 | 8.7 |
| 10 | 4 | 0.6 | 26 | 3.9 | 125 | 18.5 | 124 | 18.4 | 334 | 49.5 | 62 | 9.2 |
| 11 | 5 | 0.7 | 33 | 4.9 | 214 | 31.7 | 206 | 30.5 | 185 | 27.4 | 32 | 4.7 |
| 12 | 3 | 0.4 | 40 | 5.9 | 219 | 32.4 | 164 | 24.3 | 218 | 32.3 | 31 | 4.6 |
| 13 | 4 | 0.6 | 22 | 3.3 | 118 | 17.5 | 196 | 29.0 | 287 | 42.5 | 48 | 7.1 |
| 14 | 1 | 0.1 | 40 | 5.9 | 225 | 33.3 | 247 | 36.6 | 146 | 21.6 | 16 | 2.4 |
| 15 | 4 | 0.6 | 35 | 5.2 | 148 | 21.9 | 110 | 16.3 | 315 | 46.7 | 63 | 9.3 |
| 16 | 2 | 0.3 | 52 | 7.7 | 203 | 30.1 | 180 | 26.7 | 198 | 29.3 | 40 | 5.9 |
| 17 | 2 | 0.3 | 45 | 6.7 | 293 | 43.4 | 262 | 38.8 | 64 | 9.5 | 9 | 1.3 |
| 18 | 2 | 0.3 | 43 | 6.4 | 290 | 43.0 | 187 | 27.7 | 143 | 21.2 | 10 | 1.5 |
| 19 | 6 | 0.9 | 35 | 5.2 | 250 | 37.0 | 214 | 31.7 | 151 | 22.4 | 19 | 2.8 |
| 20 | 3 | 0.4 | 15 | 2.2 | 79 | 11.7 | 238 | 35.3 | 285 | 42.2 | 55 | 8.1 |
| 21 | 4 | 0.6 | 26 | 3.9 | 199 | 29.5 | 244 | 36.1 | 178 | 26.4 | 24 | 3.6 |
| 22 | 4 | 0.6 | 23 | 3.4 | 152 | 22.5 | 188 | 27.9 | 279 | 41.3 | 29 | 4.3 |
| 23 | 5 | 0.7 | 94 | 13.9 | 223 | 33.0 | 212 | 31.4 | 117 | 17.3 | 24 | 3.6 |
| 24 | 4 | 0.6 | 39 | 5.8 | 224 | 33.2 | 180 | 26.7 | 196 | 29.0 | 32 | 4.7 |
| 25 | 3 | 0.4 | 31 | 4.6 | 199 | 29.5 | 232 | 34.3 | 187 | 27.7 | 23 | 3.4 |

Frequency Distribution of Responses to Attitude Statements for Buchanan County Teachers

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 1 | 1.3 | 10 | 12.8 | 29 | 37.2 | 7 | 9.0 | 29 | 37.2 | 2 | 2.6 |
| 2 | 0 | 0.0 | 4 | 5.1 | 20 | 25.6 | 6 | 7.7 | 32 | 41.0 | 16 | 20.5 |
| 3 | 2 | 2.6 | 4 | 5.1 | 27 | 34.6 | 15 | 19.2 | 25 | 32.1 | 5 | 6.4 |
| 4 | 1 | 1.3 | 3 | 3.8 | 36 | 46.2 | 8 | 10.3 | 23 | 29.5 | 7 | 9.0 |
| 5 | 0 | 0.0 | 6 | 7.7 | 37 | 47.4 | 19 | 24.4 | 15 | 19.2 | 1 | 1.3 |
| 6 | 0 | 0.0 | 3 | 3.8 | 52 | 66.7 | 12 | 15.4 | 9 | 11.5 | 2 | 2.6 |
| 7 | 0 | 0.0 | 1 | 1.3 | 18 | 23.1 | 7 | 9.0 | 45 | 57.7 | 7 | 9.0 |
| 8 | 0 | 0.0 | 2 | 2.6 | 38 | 48.7 | 15 | 19.2 | 21 | 26.9 | 2 | 2.6 |
| 9 | 1 | 1.3 | 1 | 1.3 | 9 | 11.5 | 5 | 6.4 | 43 | 55.1 | 19 | 24.4 |
| 10 | 1 | 1.3 | 0 | 0.0 | 5 | 6.4 | 4 | 5.1 | 46 | 59.0 | 22 | 28.2 |
| 11 | 0 | 0.0 | 0 | 0.0 | 11 | 14.1 | 12 | 15.4 | 40 | 51.3 | 15 | 19.2 |
| 12 | 2 | 2.6 | 0 | 0.0 | 19 | 24.4 | 13 | 16.7 | 37 | 47.4 | 7 | 9.0 |
| 13 | 0 | 0.0 | 0 | 0.0 | 6 | 7.7 | 17 | 21.8 | 48 | 61.5 | 7 | 9.0 |
| 14 | 1 | 1.3 | 1 | 1.3 | 18 | 23.1 | 17 | 21.8 | 33 | 42.3 | 8 | 10.3 |
| 15 | 0 | 0.0 | 1 | 1.3 | 13 | 16.7 | 6 | 7.7 | 41 | 52.6 | 17 | 21.8 |
| 16 | 0 | 0.0 | 1 | 1.3 | 23 | 29.5 | 16 | 20.5 | 27 | 34.6 | 11 | 14.1 |
| 17 | 0 | 0.0 | 1 | 1.3 | 27 | 34.6 | 29 | 39.2 | 19 | 24.4 | 2 | 2.6 |
| 18 | 3 | 3.8 | 2 | 2.6 | 35 | 44.9 | 19 | 24.4 | 18 | 23.1 | 1 | 1.3 |
| 19 | 0 | 0.0 | 0 | 0.0 | 33 | 42.3 | 11 | 14.1 | 32 | 41.0 | 2 | 2.6 |
| 20 | 0 | 0.0 | 0 | 0.0 | 18 | 23.1 | 21 | 26.9 | 35 | 44.9 | 4 | 5.1 |
| 21 | 0 | 0.0 | 0 | 0.0 | 15 | 19.2 | 16 | 20.5 | 40 | 51.3 | 7 | 9.0 |
| 22 | 1 | 1.3 | 0 | 0.0 | 2 | 2.6 | 11 | 14.1 | 56 | 71.8 | 8 | 10.3 |
| 23 | 1 | 1.3 | 2 | 2.6 | 22 | 28.2 | 19 | 24.4 | 24 | 30.8 | 10 | 12.8 |
| 24 | 0 | 0.0 | 1 | 1.3 | 25 | 32.1 | 8 | 10.3 | 36 | 46.2 | 8 | 10.3 |
| 25 | 1 | 1.3 | 0 | 0.0 | 17 | 21.8 | 20 | 25.6 | 32 | 41.0 | 8 | 10.3 |

Frequency Distribution of Responses to Attitude Statements for Dickenson County Teachers

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 0 | 0.0 | 4 | 14.8 | 15 | 55.6 | 3 | 11.1 | 5 | 18.5 | 0 | 0.0 |
| 2 | 0 | 0.0 | 7 | 25.9 | 7 | 25.9 | 1 | 3.7 | 10 | 37.0 | 2 | 7.4 |
| 3 | 0 | 0.0 | 7 | 25.9 | 10 | 37.0 | 6 | 22.2 | 4 | 14.8 | 0 | 0.0 |
| 4 | 0 | 0.0 | 4 | 14.8 | 11 | 40.7 | 5 | 18.5 | 6 | 22.2 | 1 | 3.7 |
| 5 | 0 | 0.0 | 5 | 18.5 | 8 | 29.6 | 8 | 29.6 | 4 | 14.8 | 2 | 7.4 |
| 6 | 0 | 0.0 | 9 | 33.3 | 8 | 29.6 | 7 | 25.9 | 3 | 11.1 | 0 | 0.0 |
| 7 | 0 | 0.0 | 5 | 18.5 | 7 | 25.9 | 8 | 29.6 | 7 | 25.9 | 0 | 0.0 |
| 8 | 0 | 0.0 | 5 | 18.5 | 6 | 22.2 | 7 | 25.9 | 8 | 29.6 | 1 | 3.7 |
| 9 | 0 | 0.0 | 3 | 11.1 | 7 | 25.9 | 4 | 14.8 | 12 | 44.4 | 1 | 3.7 |
| 10 | 0 | 0.0 | 2 | 7.4 | 4 | 14.8 | 5 | 18.5 | 14 | 51.9 | 2 | 7.4 |
| 11 | 0 | 0.0 | 4 | 14.8 | 5 | 18.5 | 8 | 29.6 | 8 | 29.6 | 2 | 7.4 |
| 12 | 0 | 0.0 | 3 | 11.1 | 12 | 44.4 | 4 | 14.8 | 7 | 25.9 | 1 | 3.7 |
| 13 | 0 | 0.0 | 4 | 14.8 | 6 | 22.2 | 7 | 25.9 | 9 | 33.3 | 1 | 3.7 |
| 14 | 0 | 0.0 | 6 | 22.2 | 8 | 29.6 | 6 | 22.2 | 5 | 18.5 | 2 | 7.4 |
| 15 | 0 | 0.0 | 4 | 14.8 | 7 | 25.9 | 4 | 14.8 | 9 | 33.3 | 3 | 11.1 |
| 16 | 0 | 0.0 | 4 | 14.8 | 10 | 37.0 | 4 | 14.8 | 8 | 29.6 | 1 | 3.7 |
| 17 | 0 | 0.0 | 5 | 18.5 | 10 | 37.0 | 10 | 37.0 | 2 | 7.4 | 0 | 0.0 |
| 18 | 0 | 0.0 | 7 | 25.9 | 12 | 44.4 | 4 | 14.8 | 4 | 14.8 | 0 | 0.0 |
| 19 | 0 | 0.0 | 5 | 18.5 | 8 | 29.6 | 9 | 33.3 | 4 | 14.8 | 1 | 3.7 |
| 20 | 0 | 0.0 | 3 | 11.1 | 6 | 22.2 | 7 | 25.9 | 10 | 37.0 | 1 | 3.7 |
| 21 | 0 | 0.0 | 4 | 14.8 | 10 | 37.0 | 5 | 18.5 | 5 | 18.5 | 3 | 11.1 |
| 22 | 0 | 0.0 | 1 | 3.7 | 8 | 29.6 | 4 | 14.8 | 12 | 44.4 | 2 | 7.4 |
| 23 | 0 | 0.0 | 6 | 22.2 | 7 | 25.9 | 10 | 37.0 | 3 | 11.1 | 1 | 3.7 |
| 24 | 0 | 0.0 | 4 | 14.8 | 10 | 37.0 | 6 | 22.2 | 6 | 22.2 | 1 | 3.7 |
| 25 | 0 | 0.0 | 5 | 18.5 | 9 | 33.3 | 4 | 14.8 | 7 | 25.9 | 2 | 7.4 |

Frequency Distribution of Responses to Attitude Statements for Russell County Teachers

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 1 | 1.9 | 5 | 9.3 | 19 | 35.2 | 3 | 5.6 | 21 | 38.9 | 5 | 9.3 |
| 2 | 0 | 0.0 | 3 | 5.6 | 20 | 37.0 | 0 | 0.0 | 22 | 40.7 | 9 | 16.7 |
| 3 | 0 | 0.0 | 3 | 5.6 | 23 | 42.6 | 11 | 20.4 | 13 | 24.1 | 4 | 7.4 |
| 4 | 0 | 0.0 | 3 | 5.6 | 16 | 29.6 | 13 | 24.1 | 17 | 31.5 | 5 | 9.3 |
| 5 | 0 | 0.0 | 2 | 3.7 | 26 | 48.1 | 13 | 24.1 | 10 | 18.5 | 3 | 5.6 |
| 6 | 0 | 0.0 | 3 | 5.6 | 23 | 42.6 | 10 | 18.5 | 14 | 25.9 | 4 | 7.4 |
| 7 | 0 | 0.0 | 3 | 5.6 | 13 | 24.1 | 8 | 14.8 | 25 | 46.3 | 5 | 9.3 |
| 8 | 0 | 0.0 | 10 | 18.5 | 16 | 29.6 | 13 | 24.1 | 12 | 22.2 | 3 | 5.6 |
| 9 | 0 | 0.0 | 2 | 3.7 | 7 | 13.0 | 8 | 14.8 | 22 | 40.7 | 15 | 27.8 |
| 10 | 0 | 0.0 | 0 | 0.0 | 3 | 5.6 | 3 | 5.6 | 28 | 51.9 | 20 | 37.0 |
| 11 | 0 | 0.0 | 1 | 1.9 | 8 | 14.8 | 7 | 13.0 | 25 | 46.3 | 13 | 24.1 |
| 12 | 0 | 0.0 | 1 | 1.9 | 13 | 24.1 | 10 | 18.5 | 21 | 38.9 | 9 | 16.7 |
| 13 | 0 | 0.0 | 1 | 1.9 | 11 | 20.4 | 8 | 14.8 | 27 | 50.0 | 7 | 13.0 |
| 14 | 0 | 0.0 | 1 | 1.9 | 11 | 20.4 | 9 | 16.7 | 23 | 42.6 | 10 | 18.5 |
| 15 | 0 | 0.0 | 0 | 0.0 | 11 | 20.4 | 7 | 13.0 | 21 | 38.9 | 15 | 27.8 |
| 16 | 0 | 0.0 | 2 | 3.7 | 18 | 33.3 | 10 | 18.5 | 16 | 29.6 | 8 | 14.8 |
| 17 | 0 | 0.0 | 2 | 3.7 | 20 | 37.0 | 18 | 33.3 | 9 | 16.7 | 5 | 9.3 |
| 18 | 0 | 0.0 | 1 | 1.9 | 24 | 44.4 | 13 | 24.1 | 9 | 16.7 | 7 | 13.0 |
| 19 | 1 | 1.9 | 2 | 3.7 | 20 | 37.0 | 15 | 27.8 | 10 | 18.5 | 6 | 11.1 |
| 20 | 0 | 0.0 | 2 | 3.7 | 5 | 9.3 | 20 | 37.0 | 24 | 44.4 | 3 | 5.6 |
| 21 | 1 | 1.9 | 1 | 1.9 | 11 | 20.4 | 13 | 24.1 | 20 | 37.0 | 8 | 14.8 |
| 22 | 0 | 0.0 | 1 | 1.9 | 8 | 14.8 | 10 | 18.5 | 26 | 48.1 | 9 | 16.7 |
| 23 | 0 | 0.0 | 2 | 3.7 | 19 | 35.2 | 13 | 24.1 | 12 | 22.2 | 8 | 14.8 |
| 24 | 0 | 0.0 | 0 | 0.0 | 21 | 38.9 | 8 | 14.8 | 15 | 27.8 | 10 | 18.5 |
| 25 | 0 | 0.0 | 1 | 1.9 | 11 | 20.4 | 12 | 22.2 | 21 | 38.9 | 9 | 16.7 |

Frequency Distribution of Responses to Attitude Statements for Tazewell County Teachers

| Statement Number | No Response | | Strongly Disagree | | Disagree | | Undecided | | Agree | | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| 1 | 0 | 0.0 | 6 | 8.2 | 17 | 23.3 | 7 | 9.6 | 40 | 54.8 | 3 | 4.1 |
| 2 | 1 | 1.4 | 5 | 6.8 | 22 | 30.1 | 10 | 13.7 | 27 | 37.0 | 8 | 11.0 |
| 3 | 0 | 0.0 | 4 | 5.5 | 27 | 37.0 | 18 | 24.7 | 20 | 27.4 | 4 | 5.5 |
| 4 | 0 | 0.0 | 1 | 1.4 | 32 | 43.8 | 7 | 9.6 | 28 | 38.4 | 5 | 6.8 |
| 5 | 0 | 0.0 | 3 | 4.1 | 25 | 34.2 | 24 | 32.9 | 18 | 24.7 | 3 | 4.1 |
| 6 | 0 | 0.0 | 8 | 11.0 | 33 | 45.2 | 13 | 17.8 | 17 | 23.3 | 2 | 2.7 |
| 7 | 2 | 2.7 | 4 | 5.5 | 18 | 24.7 | 14 | 19.2 | 26 | 35.6 | 9 | 12.3 |
| 8 | 0 | 0.0 | 6 | 8.2 | 36 | 49.3 | 15 | 20.5 | 11 | 15.1 | 5 | 6.8 |
| 9 | 0 | 0.0 | 3 | 4.1 | 8 | 11.0 | 18 | 24.7 | 32 | 43.8 | 12 | 16.4 |
| 10 | 0 | 0.0 | 2 | 2.7 | 9 | 12.3 | 10 | 13.7 | 43 | 58.9 | 9 | 12.3 |
| 11 | 0 | 0.0 | 2 | 2.7 | 14 | 19.2 | 13 | 17.8 | 35 | 47.9 | 9 | 12.3 |
| 12 | 1 | 1.4 | 3 | 4.1 | 15 | 20.5 | 11 | 15.1 | 35 | 47.9 | 8 | 11.0 |
| 13 | 1 | 1.4 | 4 | 5.5 | 16 | 21.9 | 10 | 13.7 | 36 | 49.3 | 6 | 8.2 |
| 14 | 1 | 1.4 | 1 | 1.4 | 27 | 37.0 | 19 | 26.0 | 22 | 30.1 | 3 | 4.1 |
| 15 | 0 | 0.0 | 0 | 0.0 | 23 | 31.5 | 5 | 6.8 | 33 | 45.2 | 12 | 16.4 |
| 16 | 0 | 0.0 | 3 | 4.1 | 32 | 43.8 | 16 | 21.9 | 18 | 24.7 | 4 | 5.5 |
| 17 | 1 | 1.4 | 3 | 4.1 | 34 | 46.6 | 27 | 37.0 | 7 | 9.6 | 1 | 1.4 |
| 18 | 1 | 1.4 | 3 | 4.1 | 37 | 50.7 | 22 | 30.1 | 10 | 13.7 | 0 | 0.0 |
| 19 | 1 | 1.4 | 3 | 4.1 | 29 | 39.7 | 12 | 16.4 | 25 | 34.2 | 3 | 4.1 |
| 20 | 2 | 2.7 | 1 | 1.4 | 16 | 21.9 | 14 | 19.2 | 35 | 47.9 | 5 | 6.8 |
| 21 | 1 | 1.4 | 2 | 2.7 | 21 | 28.8 | 22 | 30.1 | 23 | 31.5 | 4 | 5.5 |
| 22 | 1 | 1.4 | 1 | 1.4 | 9 | 12.3 | 12 | 16.4 | 43 | 58.9 | 7 | 9.6 |
| 23 | 2 | 2.7 | 6 | 8.2 | 28 | 38.4 | 18 | 24.7 | 15 | 20.5 | 4 | 5.5 |
| 24 | 1 | 1.4 | 4 | 5.5 | 22 | 30.1 | 14 | 19.2 | 25 | 34.2 | 7 | 9.6 |
| 25 | 1 | 1.4 | 2 | 2.7 | 23 | 31.5 | 8 | 11.0 | 34 | 46.6 | 5 | 6.8 |

# APPENDIX E

# CORRESPONDENCE

Dear Evaluator:

Please evaluate the list of items for the social sub-scale and economic sub-scale according to the "Suggested Criteria for Writing Attitude Statements" by Charles Wang.

These items were collected by reviewing the literature and talking with several people. They were constructed according to the description provided in the methodology of the study. A copy is provided for your use.

Please review these items carefully and indicate your evaluation of each item by: checking (✓) for complete acceptance, putting an "X" in front of the item to indicate that you think it should be deleted, by marking out words or phrases, and/or writing in new or different words, phrases, or items.

Try to be as independent and objective as possible in order to avoid reacting according to personal beliefs and opinions.

Your prompt attention will be deeply appreciated.

Cordially,

Robert L. Gillespie
Doctoral Student

Approved: Dr. Clyde Orr, Chairman
Doctoral Committee
East Tennessee State University

INSTRUCTIONS FOR HIGH SCHOOL COORDINATOR

1. This instrument is being field-tested, which means that the items will be subjected to a statistical test.

2. Select only every twelfth senior to take the instrument. They should all take it at the same time.

3. Encourage seniors to follow directions carefully. READ the directions to them.

4. Ask seniors not to discuss this with others after they are through.

5. Please keep a list of names of those who complete this instrument. This is necessary so they will not take the next (final) administration of the revised form.

6. This research is part of a doctoral dissertation on attitudes of high school seniors in Buchanan, Dickenson, Russell, and Tazewell Counties, toward community colleges and four-year colleges.

7. This project has the approval of East Tennessee State University, Charles King, President of SVCC, and the superintendents of schools in the four counties.

8. Data will be computerized at ETSU and the analysis will be available to division superintendents upon request.

9. Thank you for your conscientious support of this research.

Robert L. Gillespie
Assistant Superintendent
Buchanan County Schools
Box 833
Grundy, Virginia 24614

Phone 935-2331 or 935-4551

January 24, 1977

We, the undersigned members of the Graduate Advisory Committee of Robert L. Gillespie, approve the prospectus for his dissertation entitled "A Comparison of Attitudes Toward Community Colleges with Attitudes Toward Four-Year Colleges."

s/Clyde L. Orr

s/Charles W. Burkett

s/Donald R. Jones

s/J. Howard Bowers

s/William L. Evernden

SOUTHWEST VIRGINIA COMMUNITY COLLEGE
RICHLANDS, VIRGINIA 24641, TELEPHONE (703) 964-4028

Office of the President

December 20, 1974

Mr. Robert L. Gillespie
Route 2, Box 107-C
Grundy, Virginia 24614

Dear Bob:

Our staff has recently spent a great deal of time reviewing and discussing your proposed dissertation topic. We are most enthusiastic with your proposal and believe that a study of this nature will prove most helpful to our institution as we search for opportunities to provide our citizens with accurate information regarding the opportunities at Southwest Virginia Community College.

You may recall that in an earlier phone conversation, I emphasized a concern that we are not reaching our citizens in the comprehensive manner desired. We would like to encourage you to move ahead on your proposal "A Comparison of Attitudes Toward Community Colleges with Attitudes Toward Four-Year Institutions." You can count on our full support and assistance with your study.

With best wishes for a Happy Holiday Season!

Sincerely yours,

s/Charles R. King

CRK:bb

BUCHANAN COUNTY PUBLIC SCHOOLS

James W. Moon
DIVISION SUPERINTENDENT

Phone 935-2331

Grundy, Virginia 24614

January 8, 1975

Mr. Robert L. Gillespie
Route 2, Box 107-C
Grundy, Virginia 24614

Dear Mr. Gillespie:

I believe your proposal for a dissertation, "A Comparison of Attitudes Toward Community Colleges with Attitudes Toward Four-Year Colleges," could provide meaningful information for our county. You have my approval and support for your research.

Sincerely,

s/James W. Moon
Division Superintendent

JWM/jsd

DICKENSON COUNTY SCHOOLS

Paul W. Skeen, Supt.

CLINTWOOD, VIRGINIA

24228

January 24, 1975

Mr. Robert L. Gillespie
Route 2, Box 107-C
Grundy, Virginia 24614

Dear Mr. Gillespie:

This letter is an indication of my interest in your proposed research on "A Comparison of Attitudes Toward Community Colleges with Attitudes Toward Four-Year Institutions."

Inasmuch as your study will involve the Southwest Virginia Community College, which serves a part of Dickenson County, I give my wholehearted approval to your study.

Sincerely yours,

s/Paul W. Skeen

RUSSELL COUNTY PUBLIC SCHOOLS

Omer E. Elkins, Division Superintendent

Lebanon, Virginia 24266

January 14, 1975

Mr. Robert L. Gillespie
Route 2, Box 107-C
Grundy, Virginia 24614

Dear Mr. Gillespie:

Your request to involve the Russell County School Administrators, supervisors, teachers of high school seniors, and high school seniors in your research project, "A Comparison of Attitudes Toward Community College with Attitudes Toward Four-Year Institutions," is hereby approved. The only stipulation is that any and all instruments used for gathering information from school personnel must be approved in this office before being used.

If I can be of further assistance in this project, do not hesitate to call on me.

Very truly yours,

s/Omer E. Elkins
Division Superintendent
Russell County Schools

EE/bll

BOARD OF EDUCATION OF TAZEWELL COUNTY

Telephone 988-5511

LESTER L. JONES, Superintendent

TAZEWELL, VIRGINIA 24651

LEWIS C. HARTSOCK, Chairman
Bluefield, Virginia 24605
VIRGINIA M. HAGER, Clerk
Tazewell, Virginia 24651

SUE B. MOSS, Member
Burkes Garden, Virginia
CECIL K. HERRIN, Member
Richlands, Virginia 24641

January 10, 1975

Mr. Robert L. Gillespie
Rt. #2, Box 107-C
Grundy, Virginia

Dear Mr. Gillespie:

This will acknowledge receipt of your letter proposing research in the service area of Southwest Virginia Community College. I believe that the topic is researchable and might yield significant data for the college as well as for the counties involved.

You have my support and approval for the conduction of the study in Tazewell County.

All good wishes.

Sincerely,

s/Lester L. Jones
Division Superintendent
Tazewell County Schools

LLJ:b

INSTRUCTIONS FOR HIGH SCHOOL COORDINATOR

1. In March, this instrument was field tested by administering it to every twelfth senior in every high school in Buchanan, Dickenson, Russell, and Tazewell Counties.

2. This is the final version of the instrument and will be administered to ALL SENIORS except those who were in the field test. You are to exclude all seniors who took the instrument in March.

3. Administer the attitude instrument ONLY to EACH teacher who has a senior in his class. If a teacher has only one senior in his class, that teacher should complete the instrument. Teachers should not complete the Biographical Data Form.

4. Encourage seniors to follow directions carefully and to complete EVERY item. Seniors should not discuss the instrument with anyone until they are through.

5. This instrument is not timed, but seniors should work rapidly and not spend too much time on it.

6. All instruments should be administered during the week of May 9-13 if possible.

7. Return completed instruments to your secondary supervisor as soon as possible.

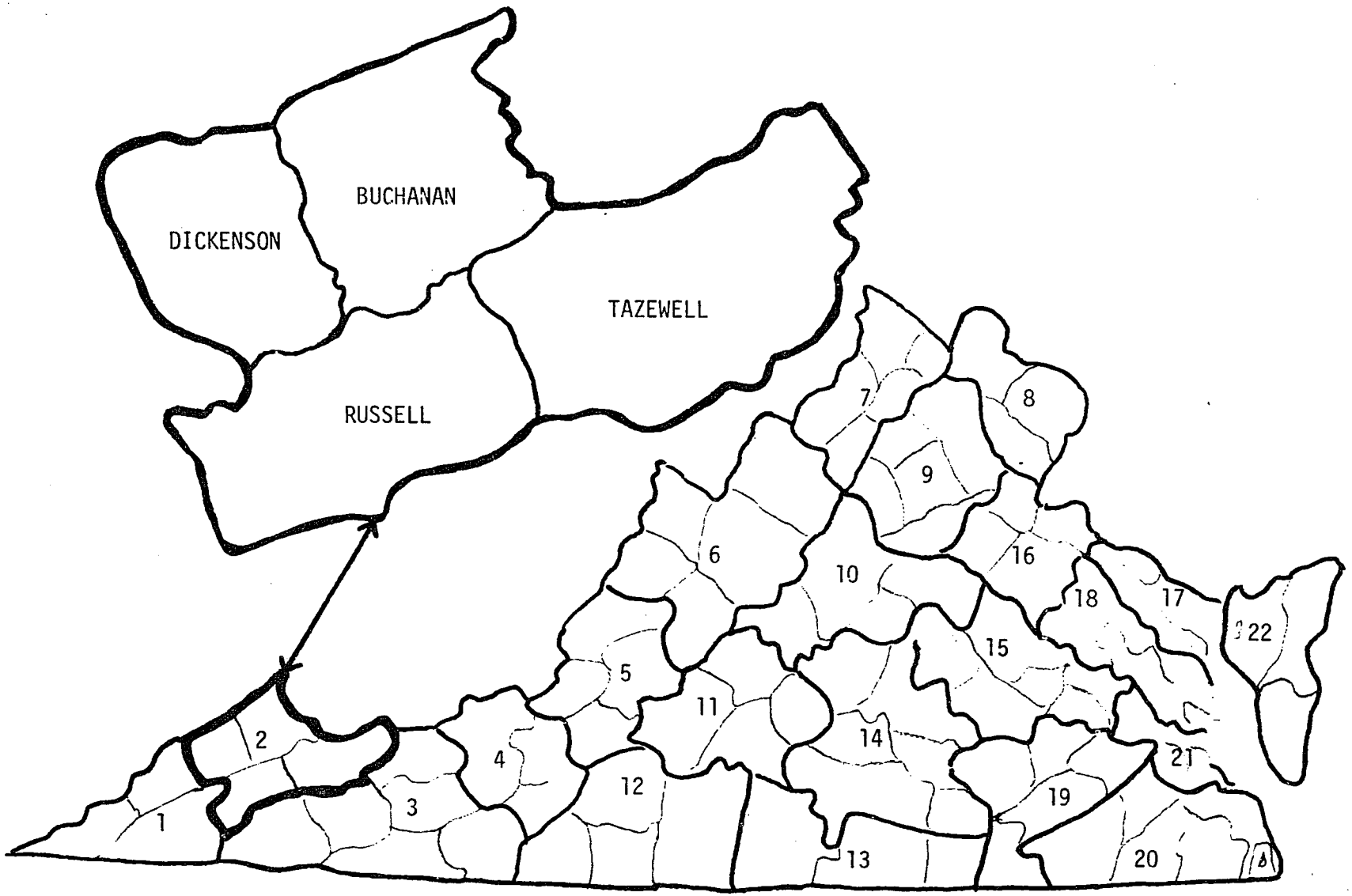
8. Thank you for your cooperation.

Robert L. Gillespie
Assistant Superintendent
Box 833
Grundy, Virginia 24614

Phone: 935-4551 or 935-2331

# APPENDIX F

## MAP OF FOUR-COUNTY AREA


DICKENSON
BUCHANAN
TAZEWELL
RUSSELL
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